

# GOLDEN VALLEY RANCH

## POTABLE WATER

### RESERVOIR 2750 N-1

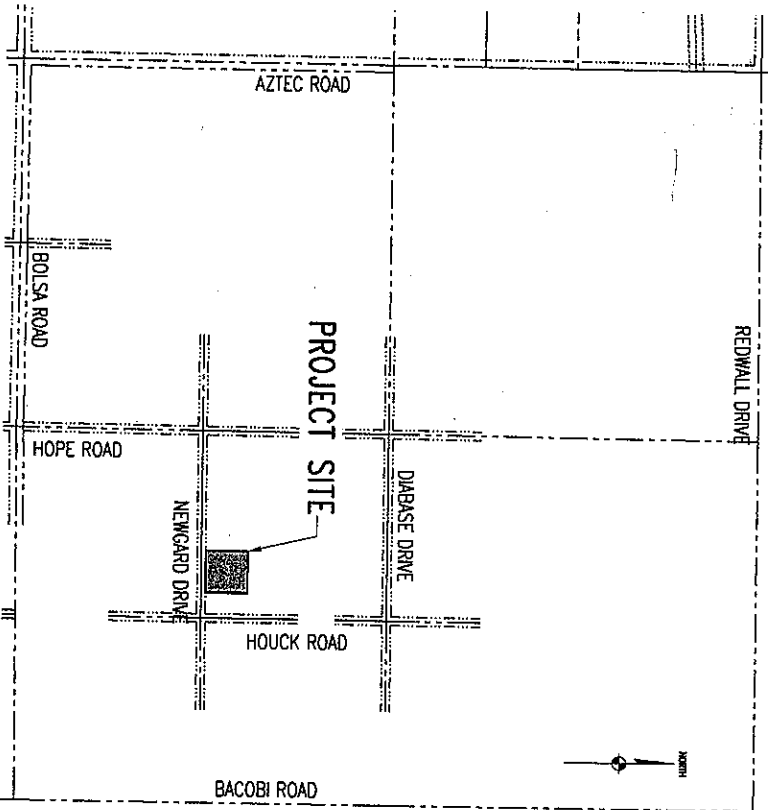
**BENCHMARK**  
BENCHMARK # "SD 34" M.C.S.D.  
ELEVATION= 2590.24273 FT (NAD 83)

DESCRIPTION: ALUM CAP 2" DIA., SET IN CONC. 65 FT. NORTHEAST OF THE SOUTH 1/4 CORNER OF SEC. 35, T. 21 N., R. 18 W. AND THE INTERSECTION OF SHIMMUP DR. AND HOPE RD., STAMPED "SD 34 1999 RLS 10343."

**BASIS OF BEARING**

NORTH 00-13-38" EAST - THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 02, TOWNSHIP 20 NORTH, RANGE 18 WEST, CLIA & SALT RIVER MERIDIAN, MOHAVE COUNTY, ARIZONA, AS DETERMINED BY THE ARIZONA COORDINATE SYSTEM OF 1983 (NAD 83 - WFS), WEST ZONE, INTERNATIONAL FOOT (FT), UTILIZING PSI STATIC OBSERVATIONS PROCESSED BY NGS-OPUS.

M.C.S.D. "SD 32" = LATITUDE 35-09-22.70034"N,  
LONGITUDE 114-09-21.57240"W (NAD 83)  
HEIGHT 2562.46391ft (NAD 83)  
STONE 1/4 COR 3/2 = LATITUDE 35-08-55.53385"N,  
LONGITUDE 114-10-30.72281"W (NAD 83)  
HEIGHT 2498.20458ft (NAD 83)



VICINITY MAP  
NOT TO SCALE

**DISCLAIMER NOTE**

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE. ANY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES. NO REPRESENTATION IS MADE BY ANY ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

Call before you dig  
1-800-782-5246  
1-800-4-A-DAVE

Call before you dig  
1-828-753-5591  
Overhead

**UTILITIES**  
SEWAGE DISPOSAL:  
WATER:  
ELECTRICITY:  
TELEPHONE:  
GAS:  
SOLID WASTE COLLECT:  
SOLID WASTE DISPOSAL:  
FIRE DISTRICT:

PERKINS MOUNTAIN  
PERKINS MOUNTAIN  
UNISOURCE ENERGY  
FRONTIER  
UNISOURCE ENERGY  
WASTE MANAGEMENT  
MOHAVE COUNTY  
GOLDEN VALLEY FIRE DEPARTMENT  
2498 AIRWAY AVENUE (928) 681-4129  
2202 STOCKTON HILL (928) 753-3000  
2498 AIRWAY AVENUE (928) 681-4129  
3250 CATTIN DRIVE (928) 718-4900  
201 N. 4TH STREET (928) 753-0723  
3327 N. WATER RD. (928) 555-3479

SHEET NO.	DWG. NO.	DESCRIPTION
1	G1	TITLE SHEET
2	G2	GENERAL ABBREVIATIONS, GENERAL NOTES
3	G3	GENERAL, MECHANICAL, SITE PLAN LEGEND
4	H01	OVERALL SITE AND SURVEY CONTROL PLAN
5	G01	GRADING PLAN
6	G02	GRADING SECTIONS AND DETAILS
7	U01	YARD PIPING PLAN
8	U02	YARD PIPING PROFILES
9	U03	YARD PIPING PROFILES
10	U04	RESERVOIR PLAN AND SECTIONS
11	U05	RESERVOIR SECTIONS AND DETAILS
12	U06	RESERVOIR DETAILS
13	U07	RESERVOIR DETAILS
14	D01	FENCE AND GATE DETAILS
15	E001	ELECTRICAL SYMBOLS AND LEGEND
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17	E003	POWER AND GROUNDING PLAN
18	E004	SCHEMATIC/CONNECTION DIAGRAM
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24	I002	PROCESS AND INSTRUMENTATION DIAGRAM

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**OWNER**

SOUTH DAKOTA CONSERVANCY LLC,  
4720 S. FORT APACHE ROAD,  
SUITE 300 LAS VEGAS, NEVADA 89147  
(702) 873-5538

**DEVELOPER**

RHODES HOMES ARIZONA, LLC  
2215 HILDAWAY AVE., NO.  
SUITE H  
KINGMAN, ARIZONA 86401  
(928) 718-2210

**ENGINEER**

STANLEY CONSULTANTS, INC.,  
5820 S. EASTERN AVENUE,  
SUITE 200  
LAS VEGAS, NEVADA 89119  
(702) 369-9386



Stanley Consultants Inc.  
5820 SOUTH EASTERN AVENUE, SUITE 200  
LAS VEGAS, NEVADA 89119 (702) 369-9386

A Stanley Group Company  
Engineering, Environmental  
and Construction Services  
Worldwide

PROJECT:

GOLDEN VALLEY RANCH  
POTABLE WATER  
RESERVOIR 2750 N-1

SHEET:

TITLE SHEET

REVISIONS

DATE

DESIGN BY: BJH  
DRAFTED BY: RDB  
CHECKED BY:

RHODES HOMES  
2750-NORTH SITE

SCALE (H) N/A  
FLD. BK. # N/A

SCALE (V) N/A  
DATE: 1/18/06

NOT FOR  
CONSTRUCTION

DRAWING NO.

G1

1/18

ABBREVIATIONS

AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
AC	ASPHALT CONCRETE, AIR CONDITIONING UNIT
AD	ACCESS DOOR
ADOL	ADDITIONAL
AL	ALUMINUM
AE	AIR FILTER
AU	AIR HANDLING UNIT
BC	BRASS CAP
BLDG	BUILDING
BLK WALL	BLOCK WALL
BL	BEAM, BENCHMARK
BOD	BOTTOM OF DUCT ELEVATION
BOT	BOTTOM
BOP	BOTTOM OF PIPE ELEVATION
BT	BUTTERFLY VALVE
BCE	BEGINNING OF VERTICAL CURVE ELEVATION
BVC	BEGINNING OF VERTICAL CURVE STATION
CC	CABLE TELEVISION
CCM	COOLING COIL
CR	CUBIC FEET PER MINUTE
CI	CIRCULAR
CL C/L	CONSTRUCTION JOINT
CL	CENTERLINE
CL	CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
CONC	CONCRETE
CONT	CONTINUOUS
COR	CORNER
CP	CATHODIC PROTECTION
CS	CHLORINE SOLUTION
CIR	CENTER
CR	COLD WATER
DB	DRY BULB
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DN	DOWN
DTL	DETAIL
DWG	DRAWING
E	ELECTRIC, EAST
EA	EACH
EF	EACH FACE, EXHAUST FAN
EG	EDGE OF GRAVEL
EL ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EQUIP	EQUIPMENT
FACE	END OF VERTICAL CURVE ELEVATION
FACS	END OF VERTICAL CURVE STATION
EW	EACH WAY TOP AND BOTTOM
EXP	EXPANSION
EXP	EXPANSION
FCA	FLEXIBLE COUPLING ADAPTER
FID	FLOOR DRAIN
FF	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
FL	FLANGE
FLA	FULL LOAD AMPS
FM	FORCE MAIN
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FIG	FLOORING
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
GRD	GRADE
GB	GRADE BREAK
GV	GATE VALVE
HB	HOSE BIBB OR WALL FAUCET
HL	HIGH LEVEL
HORIZ	HORIZONTAL
ID	INSIDE DIAMETER
IE, INV EL	INVERT ELEVATION
IF	INSIDE FACE
INV	INVERT
JOINT	JOINT
JT	JOINT
LB	LEFT
LL	LOW LEVEL
LL	LOW LEVEL
MCC	MOTOR CONTROL CENTER
MCC	MOTOR CONTROL CENTER
MCA	MATERIAL CIRCULATORY
MFR	MANUFACTURER
MAG	MILLION GALLONS
MH	MANHOLE
MV	MOTOR VALVE
MCP	MORTAR LINED PIPE, EPOXY COATED EXTERIOR
MCP	MORTAR LINED AND COATED PIPE
MS	MECHANICAL JOINT
N	NORTH
N	NORTH
NC	NORMALLY CLOSED

ABBREVIATIONS

NTS	NOT TO SCALE
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OF	OUTSIDE FACE
OD	OUTSIDE DIAMETER
P&L	PROCESS AND INSTRUMENTATION DIAGRAM
PC	POINT OF CURVE
PT	POINT OF TANGENT
PL	PLATE
PROJ	PROJECTION
PROP	PROPERTY
PVC	POLYVINYL CHLORIDE PIPE
PM	POINT OF VERTICAL INTERSECTION
PP	POTABLE WATER
RCP	REINFORCED CONCRETE PIPE
RD	REINFORCED
REO	REQUIRED
REQ	REQUIRED
ROW	RIGHT OF WAY
RT	RIGHT
SCHED	SCHEDULE
SE	SUPPLY FAN
SMU	STEEL MECHANICAL JOINT
SS, SST	STAINLESS STEEL
ST	STEEL
SID	STANDARD
SIA	STATION
T	TOP OF CONCRETE
TCC	TOP OF THICKNESS
TS	TERMINAL BLOCK
TS	TUBULAR STEEL
TW	TOP OF WALL
TWO	TOWARDS
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
V	VENT
VB	VALVE BOX
VB-C	VALVE BOX AND COVER
VCP	VENTED CLAY PIPE
VC	VOLUME CURVE
VO	VOLUME DAMPER
VG	VALLEY GUTTER
VEET	VERTICAL
VER	VENT THRU ROOF
WB	WET BULB
WP	WORKING POINT
XFR	ELECTRICAL TRANSFORMER

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH MOHAVE COUNTY STANDARD SPECIFICATIONS AND STANDARD DETAILS AND OTHER COUNTY ADOPTED STANDARDS, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER, OR UNLESS APPROVED AS A PETITION OF EXCEPTION BY HEARING OF THE PLANNING AND ZONING COMMISSION AND THE BOARD OF SUPERVISORS.
2. THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY USE PERMIT FOR ANY WORK TO BE PERFORMED WITHIN THE RIGHT-OF-WAY UNDER THE OWNERSHIP OR CONTROL OF MOHAVE COUNTY.
3. THIS SET OF PLANS HAS BEEN PREPARED FOR COMPLIANCE WITH COUNTY REQUIREMENTS PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS. HOWEVER, SUCH REVIEW SHALL NOT PREVENT THE COUNTY FROM REQUIRING CORRECTION OF ERRORS IN PLANS FOUND TO BE IN VIOLATION OF ANY LAW OR ORDINANCE. REVIEW AND APPROVAL OF PLANS DOES NOT RELEASE ANY DEVELOPER OR ENGINEER FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS ON SAID PLANS.
4. IMPROVEMENTS WILL NOT BE ACCEPTED UNTIL CERTIFIED RECORD DRAWINGS (AS-BUILTS), INCLUDING ALL TEST RESULTS, HAVE BEEN SUBMITTED AND ACCEPTED BY THE COUNTY.
5. THE DEVELOPER, ANY SUCCESSORS, AND ASSIGNS, WILL HOLD THE COUNTY OF MOHAVE, ITS OFFICERS, EMPLOYEES, AND AGENTS HARMLESS FROM ANY AND ALL CLAIMS FOR DAMAGES RELATED TO THE USE OF THIS DEVELOPMENT AS SHOWN HEREON, NOW AND IN THE FUTURE, BY REASON OF FLOODING, FLOODING, EROSION, OR DAMAGE CAUSED BY WATER, WHETHER SURFACE FLOOD OR RAINFALL.
6. DRAINAGE WILL REMAIN IN ITS NATURAL STATE AND WILL NOT BE ALTERED, DISTURBED, OR OBSTRUCTED OTHER THAN AS SHOWN ON THIS DEVELOPMENT PLAN.
7. A FLOODPLAIN USE PERMIT AND FINISHED FLOOR ELEVATION CERTIFICATE ARE REQUIRED FOR ALL PARCELS LOCATED WITHIN THE FEMA DESIGNATED AREAS OF SPECIAL FLOOD HAZARD FOR THE 100-YEAR STORM.
8. ANY RELOCATION, MODIFICATION, ETC., OF EXISTING UTILITIES AND/OR PUBLIC IMPROVEMENTS NECESSARY BY PROPOSED DEVELOPMENT SHALL BE AT NO EXPENSE TO THE COUNTY.
9. THE CONTRACTOR SHALL FOLLOW ALL BLUE STAKE LINES AND NOTIFY BLUE STAKE (1-800-STAKE-17), BEFORE DIGGING.
10. ALL GRADING SHALL CONFORM TO THE UNIFORM BUILDING CODE, AS ADOPTED AND MODIFIED BY MOHAVE COUNTY.
11. WHERE SOIL IS TO BE REMOVED FROM THE SITE, THE CONTRACTOR SHALL DESIGNATE THE LOCATION WHERE THE FILL WILL BE PLACED AND OBTAIN A LETTER FROM THE OWNER OF THAT PROPERTY ALLOWING THE PLACEMENT OF THE MATERIAL. PLACEMENT OF THIS MATERIAL SHALL BE SUBJECT TO THE APPLICABLE REQUIREMENTS AND PERMITS OF THE GOVERNING JURISDICTION.
12. ALL REQUIRED TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.
13. EXCEPT FOR THE WORK PERFORMED UNDER THE TERMS OF A FRANCHISE, OR WORK PERFORMED BY A GOVERNMENTAL AGENCY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THAT ALL WORK IS INSPECTED AND TESTED BY OR UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER WHO SHALL HOLD A VALID REGISTRATION IN THE STATE OF ARIZONA.

WATER

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE TUNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND TUNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SPONSORED AND DISTRIBUTED BY THE MARICOPA ASSOCIATION OF GOVERNMENTS (MAAG), IN ACCORDANCE WITH A.D.E.C. ENGINEERING BULLETIN NO. 10, TOGETHER WITH THESE PLANS.
2. THE LOCATION OF UTILITIES SHOWN IS BASED UPON BEST INFORMATION AVAILABLE. THE LOCATIONS AS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND BURIED CABLES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION BY CALLING:  
BLUE STAKE 1-800-STAKE-17  
AT LEAST 2 WORKING DAYS IN ADVANCE. THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES IN PROTECTING AND WORKING AROUND THEIR UTILITIES & SERVICE LINES.
3. CONTRACTOR SHALL ACQUIRE & PAY FOR ALL NECESSARY PERMITS.
4. WATER MAIN SHALL BE DUCTILE IRON, MEETING THE DESIGN REQUIREMENTS OF AWWA C-150 AND MANUFACTURER REQUIREMENTS OF AWWA C-151.
5. WATER LINES SHALL BE DISINFECTED IN ACCORDANCE WITH A.D.E.C. ENGINEERING BULLETIN NO. 8.
6. WATER/SEWER SEPARATION SHALL MEET THE REQUIREMENTS OF R18-4-502C (LATEST REVISION). SEPARATION SHALL BE A MINIMUM OF 2' VERTICAL AND 6' HORIZONTAL.
7. TRENCHING AND BACK FILL SHALL MEET THE REQUIREMENTS OF M.A.G. STANDARD SPECIFICATION 601. COMPACTION DENSITIES SHALL BE 95% FROM THE SURFACE TO 2' BELOW SURFACE.
8. CURB STOP WITH FLUSHING PIPES SHALL BE CONSTRUCTED AS REQUIRED BY M.A.G. STANDARD DETAIL NO. 380, TYPE "A", AS AMENDED BY THE CITY OF PHOENIX.
9. ALL FITTINGS FOR WATER MAINS SHALL MEET THE REQUIREMENTS OF M.A.G. STANDARD SECTION 752.
10. ALL THRUST BLOCKING FOR WATER LINES SHALL MEET THE REQUIREMENTS OF M.A.G. STANDARD DETAIL NO. 380.
11. ALL BLOCKING FOR WATER GATE VALVES SHALL MEET THE REQUIREMENTS OF M.A.G. STANDARD DETAIL NO. 301.
12. PAYMENT FOR CONSTRUCTION SHALL BE MADE ON THE BASIS OF UNIT PRICE BID IN THE CONTRACTORS PROPOSAL. ALL ITEMS CALLED FOR ON THE PLANS BUT NOT LISTED IN BID ITEMS SHALL BE CONSIDERED INCIDENTAL. SAID ITEMS INCLUDE BUT ARE NOT LIMITED TO: WATER LINE BLOCKING, NON-METALLIC TAPE, TESTING, SALVAGING MATERIAL, EXISTING UTILITIES CONNECTIONS, ETC.
13. ALL TAPPING SLEEVES, VALVES AND VALVE BOXES ON WATERLINES SHALL MEET THE REQUIREMENTS OF M.A.G. SPECIFICATIONS SECTION 630, AND M.A.G. STANDARD DETAIL NO. 340.
14. WATER METER COVERS SHALL MEET THE REQUIREMENTS OF M.A.G. STANDARD DETAIL NO. 310 AND WATER METER BOXES SHALL MEET THE REQUIREMENTS OF M.A.G. STANDARD DETAIL NO. 320.
15. ALL FITTINGS AND VALVES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL VALVES ARE TO BE PLUMB AND HAVE STRAIGHT ALIGNMENT.
16. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH M.A.G. SECTION 610-14, AND IN ACCORDANCE WITH M.A.G. SECTION 610.14 FOR DUCTILE IRON PIPE.
17. ALL EXISTING STREET PAVEMENT DISTURBED BY CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH M.A.G. STANDARD DETAIL NO. 200-1.
18. UTILITY FACILITIES, SHOWN OR NOT SHOWN IN CONTACT WITH THIS WORK SHALL BE RELOCATED BY THE GENERAL CONTRACTOR AS REQUIRED. THIS ACTIVITY SHALL BE COORDINATED WITH THE OWNER OF THE UTILITY TO PREVENT ANY UNNECESSARY INTERRUPTION OF SERVICE.

FEMA FLOOD CONTROL

FLOOD ZONE DESIGNATION: FEMA-C

SITE GRADING


ALL CONSTRUCTION SHALL CONFORM WITH THE SOILS REPORT PREPARED BY AMERICAN SOILS ENGINEERING, LLC, DATED FEBRUARY 9, 2006.  
PROJECT NO. 1123-650.

ENGINEER'S NOTES

1. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLYING CONTRACTORS AND NOT TO BE LIMITED TO NORMAL WORKING HOURS, AND THE CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY, AND HOLD THE DESIGN PROFESSIONAL HARMLESS FROM ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.
2. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND DIMENSIONS AND SHALL NOTIFY THE ENGINEER OF ALL DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK.

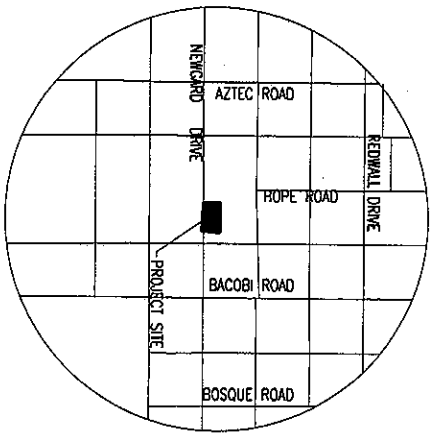
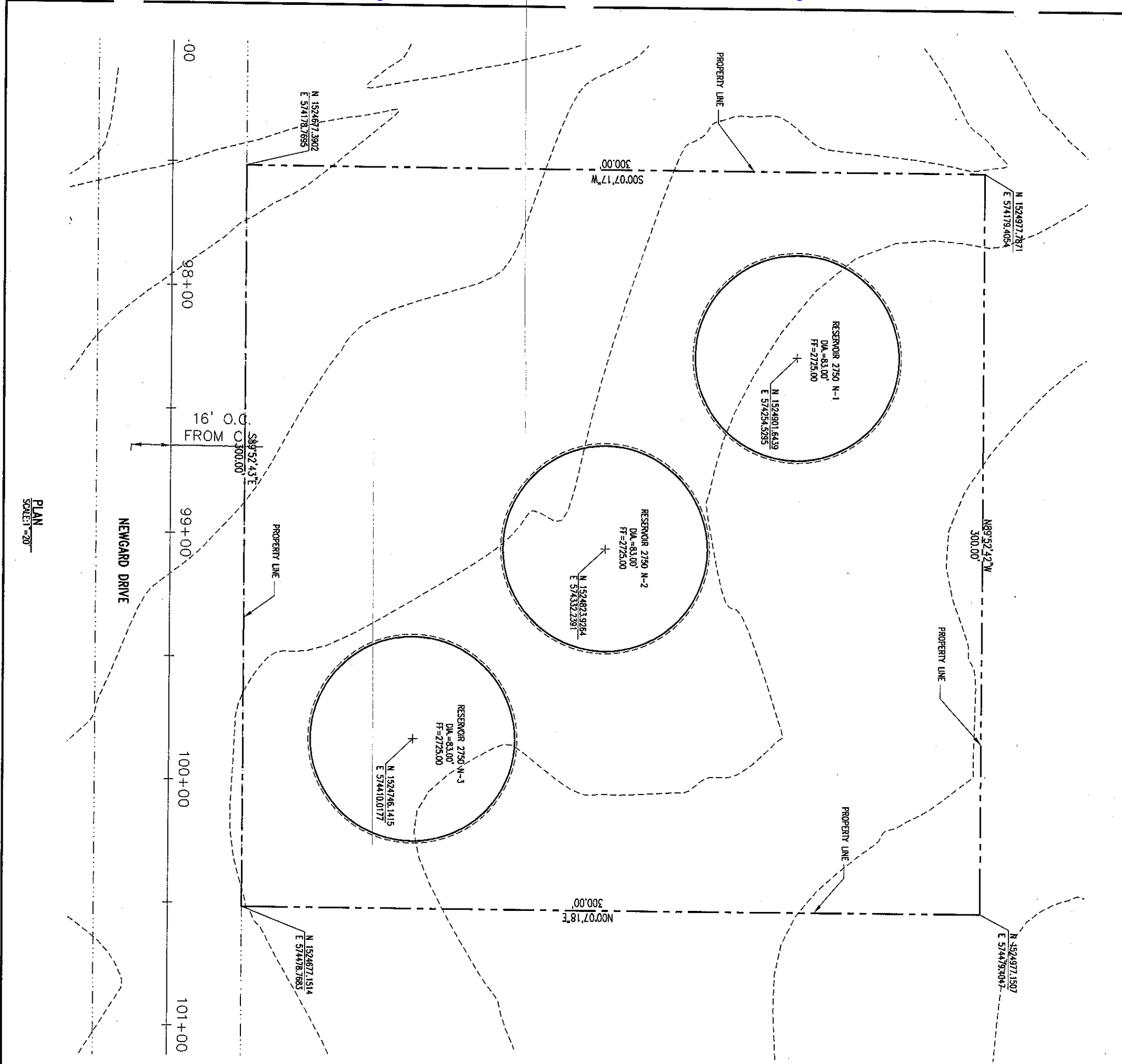
ESTIMATE OF QUANTITIES

DESCRIPTION	QUANTITY	UNIT
1.0 MG STEEL RESERVOIR & FOUNDATION	1	EA
12" DUCTILE IRON PIPE	690	LF
24" DUCTILE IRON PIPE	400	LF
12" M/CPI STL	14	LF
12" STL PIPE	36	LF
12" RCP PIPE	63	LF
12" CV & VB-C	6	EA
12" BUTTERFLY VALVE	2	EA
24" BUTTERFLY VALVE	3	EA
2" PVC CONDUIT	510	LF

DRAWING NO. G2	2	18	NOT FOR CONSTRUCTION	SHEET:	GENERAL ABBREVIATIONS, GENERAL NOTES	PROJECT:  Stanley Consultants Inc. 5820 SOUTH EASTERN AVENUE, SUITE 200 LAS VEGAS, NEVADA 89119 (702) 369-8396	A Stanley Group Company Engineering, Environmental and Construction Services Worldwide	SCALE (H) N/A	SCALE (V) N/A	DESIGN BY: BJH	DATE: 1/18/06	REVISIONS	DATE
								F.L.D. BK. # N/A	DRAFTED BY: ROB	CHECKED BY:			
GOLDEN VALLEY RANCH POTABLE WATER RESERVOIR 2750 N-1								RHODES HOMES 2750-NORTH SITE					



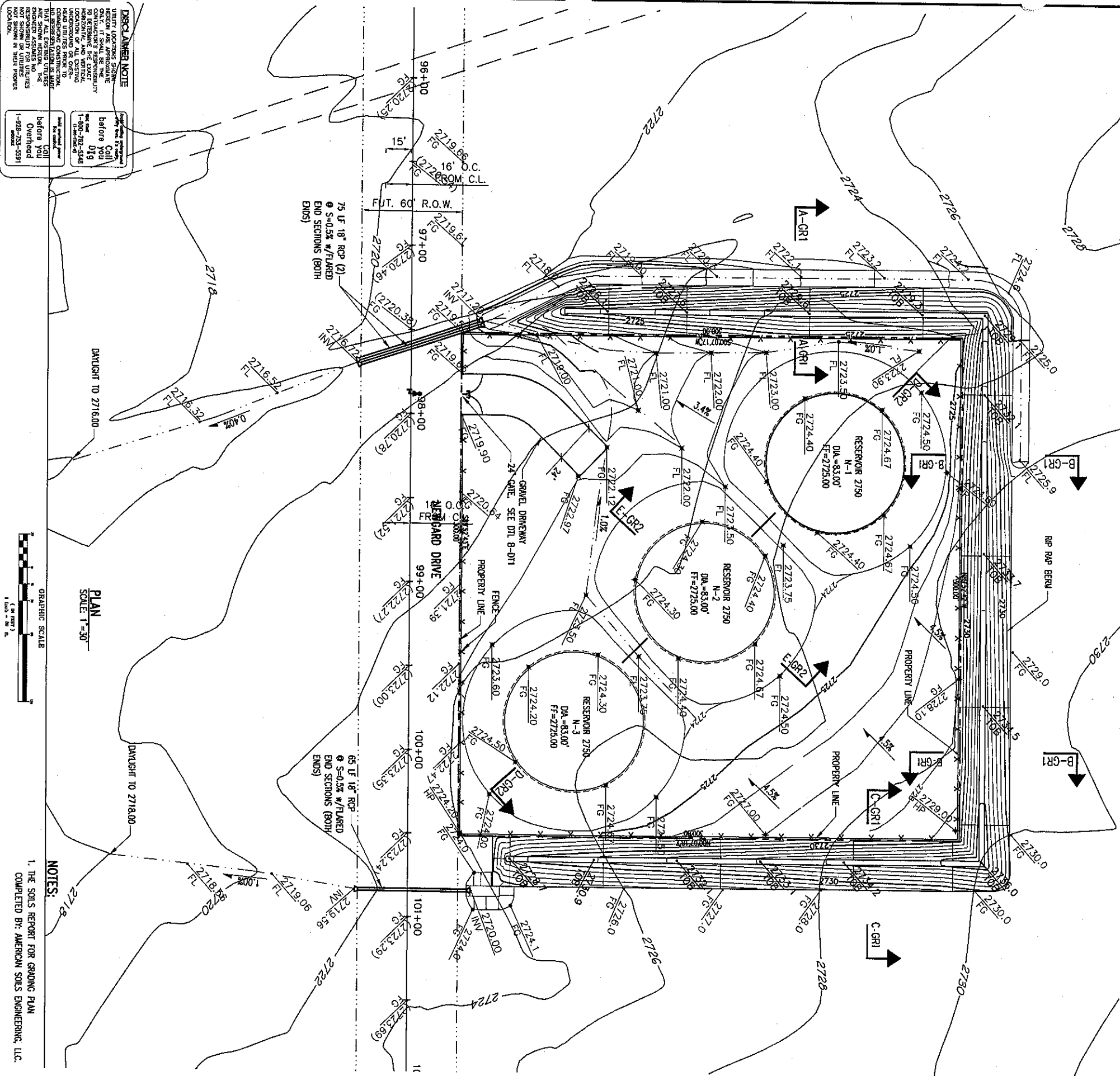




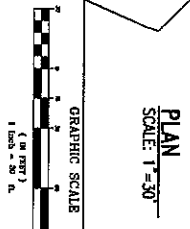
**OVERALL SURVEY CONTROL**  
**BENCHMARK**  
BENCHMARK # SD 34 M.C.S.D.  
ELEVATION = 2590.24273 FT (NAD 83)  
DESCRIPTION: ALUM CAP 2" DIA. SET IN CONC. 65 FT. NORTHEAST OF THE SOUTH 1/4 CORNER OF SEC. 35, T. 21 N., R. 18 W. AND THE INTERSECTION OF SHAWARUP DR. AND HOPE RD., STAMPED "SD 34 1989 RLS 10343."

**BASIS OF BEARING**  
NORTH 00°13'36" EAST - THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 02, TOWNSHIP 20 NORTH, RANGE 18 WEST, CLIA & SALT RIVER MERIDIAN, MOHAVE COUNTY, ARIZONA, AS DETERMINED BY THE ARIZONA COORDINATE SYSTEM OF 1983 (AZ83-MF), WEST ZONE, INTERNATIONAL FOOT (FT), UTILIZING FAST STATIC OBSERVATIONS PROCESSED BY NGS-OPUS.  
M.C.S.D. "SD 32" = LATITUDE 35°09'22.70034"N,  
LONGITUDE 114°09'21.57240"W (NAD 83)  
HEIGHT 2562.46391ft (NAD 83)  
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LONGITUDE 114°10'30.72281"W (NAD 83)  
HEIGHT 2498.20458ft (NAD 83)

DRAWING NO. HC1	SHEET: OVERALL SITE AND SURVEY CONTROL PLAN	PROJECT: GOLDEN VALLEY RANCH POTABLE WATER RESERVOIR 2750 N-1	SCALE (H) AS NOTED FLD. BK. # N/A	SCALE (V) N/A DATE: 1/18/06	DESIGN BY: BJH DRAFTED BY: RDB CHECKED BY:	REVISIONS	DATE



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**NOTES:**  
1. THE SOILS REPORT FOR GRADING PLAN COMPLETED BY: AMERICAN SOILS ENGINEERING, LLC.

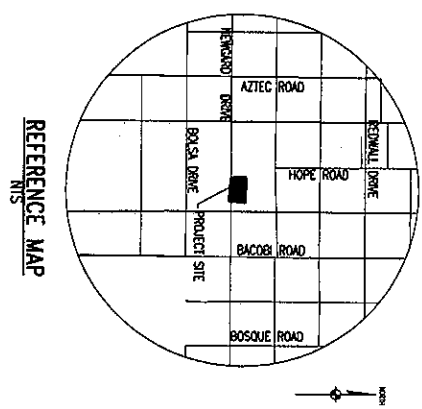
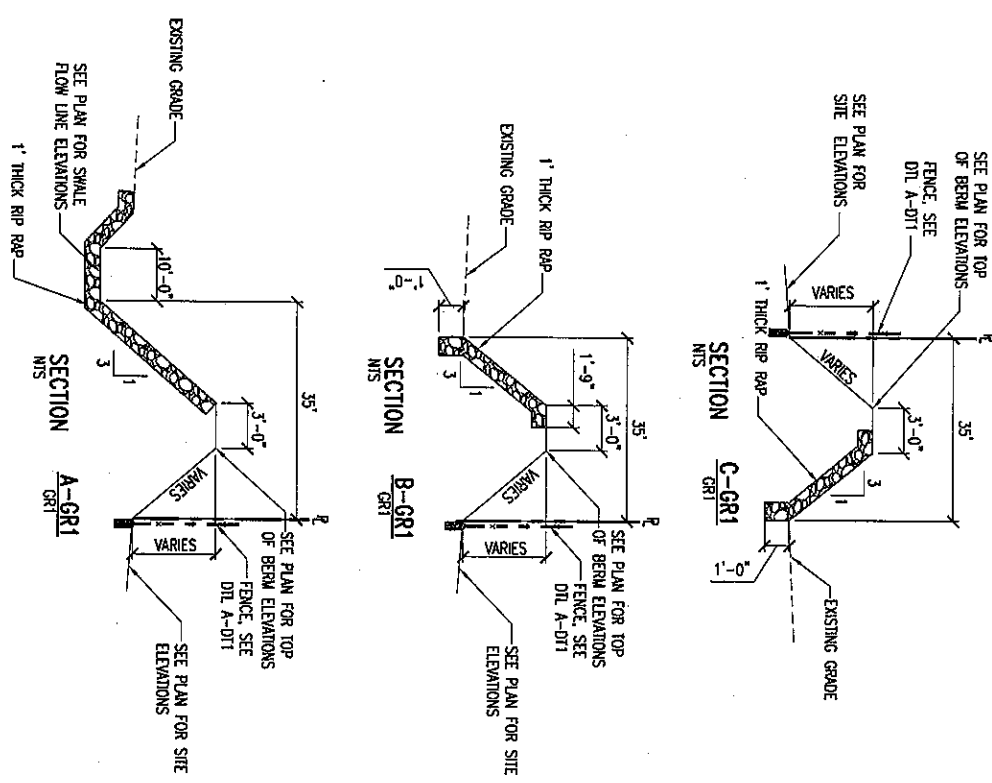
**BASIS OF BEARINGS**  
NORTH 00°12'47" EAST - THE EAST LINE OF THE SOUTHWEST QUARTER (SE 1/4) OF SECTION 27, TOWNSHIP 21 NORTH, RANGE 18 WEST, QUA & SALT RIVER MERIDIAN, MOHAVE COUNTY, ARIZONA, AS DETERMINED BY THE ARIZONA COORDINATE SYSTEM OF 1983 (NAD83 - W83), WEST ZONE, INTERNATIONAL FOOT, UTILIZING FAST STATIC OBSERVATIONS PROCESSED BY NGS-OPUS.

**BENCHMARK**  
BENCHMARK # 721 S' M.C.S.D.  
ELEVATION = 2662.014m (NAD 83)

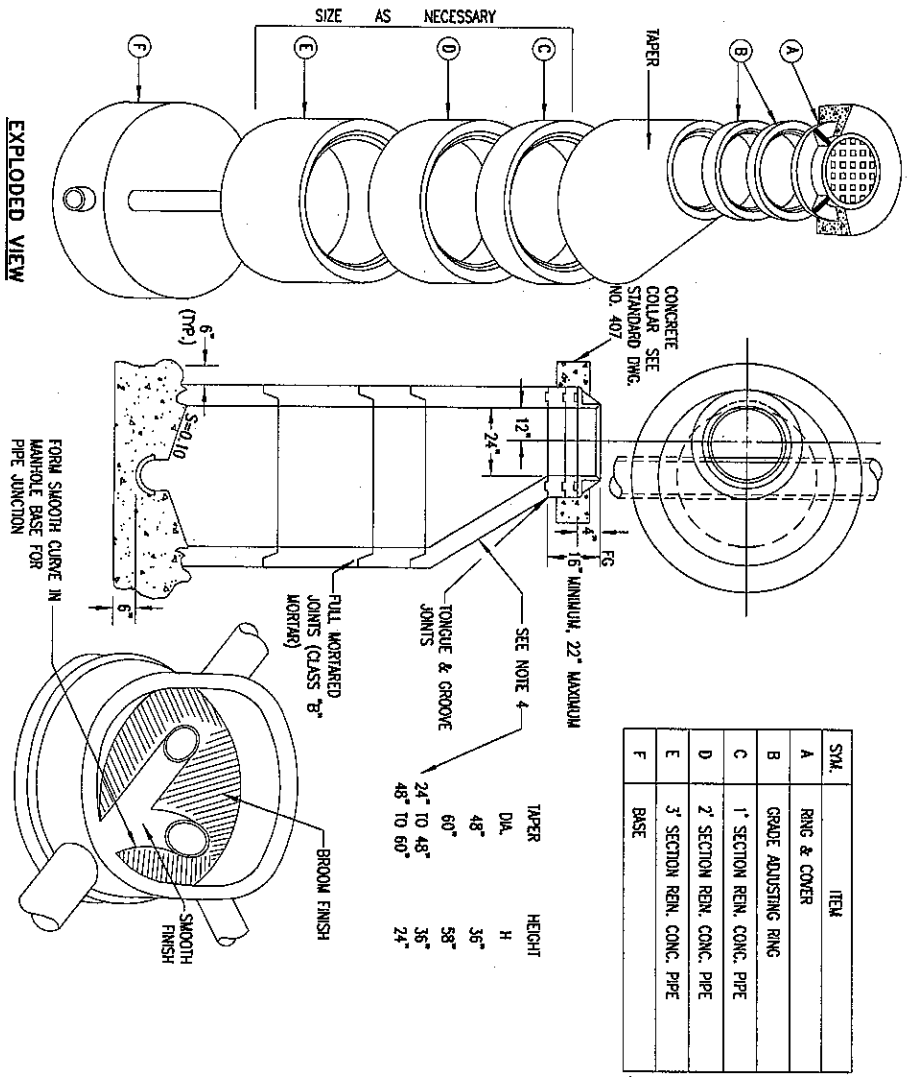
SEC COR 26/35/34/27 = LATITUDE 35°10'15.19764"N, LONGITUDE 114°10'59.03545"W (NAD 83)  
HEIGHT 2505.65536m (NAD 83)

M.C.S.D. 30 32" = LATITUDE 35°09'22.70034"N, LONGITUDE 114°09'21.57240"W (NAD 83)  
HEIGHT 2562.46391m (NAD 83)

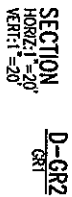
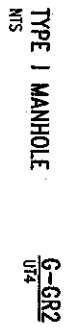
M.C.S.D. 30 35" = LATITUDE 35°09'22.43032"N, LONGITUDE 114°10'58.56309"W (NAD 83)  
HEIGHT 2466.56824m (NAD 83)



DRAWING NO. CR1	SHEET: 5	PROJECT: <b>GOLDEN VALLEY RANCH POTABLE WATER RESERVOIR 2750 N-1</b>	SCALE (H) AS SHOWN F.L.D. BK. # N/A	SCALE (V) N/A DATE: 1/18/06	DESIGN BY: BJH DRAFTED BY: RDB CHECKED BY:	REVISIONS	DATE



1. MANHOLE MATERIALS OF CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 03401, "PRECAST MANHOLES OF THE STANDARD SPECIFICATIONS".
2. REINFORCING STEEL SHALL BE AS SHOWN, WELDED TIGHTLY AT ALL INTERSECTIONS AND EMBEDDED AT LEAST ONE (1) INCH CLEAR UNLESS OTHERWISE NOTED.
3. EXCAVATION SHALL BE AS NEARLY VERTICAL AS POSSIBLE (SHEET AND SHORE, IF SOIL CONDITIONS REQUIRE), IN EXISTING STREET SECTIONS, ALLEY SECTIONS AND COMPANED AREAS SUCH AS LIMITED EASEMENTS OR ADJACENT TO STRUCTURES. NATURAL ANGLE OF REPOSE WILL ALLOW IN ALL OTHER AREAS.
4. PRECAST MANHOLE COMPONENTS SHALL CONFORM TO ASTM C-478.
5. DISTANCE BETWEEN THE TOP OF MANHOLE AND FIRST STEP SHALL BE A MINIMUM OF SIXTEEN (16) INCHES.
6. AN OPTIONAL TWO PIECE 24" TO 48" AND 48" TO 60" CONE MAY BE USED.



S/M.	ITEM
A	RING & COVER
B	GRADE ADJUSTING RING
C	1" SECTION REN. CONC. PIPE
D	2" SECTION REN. CONC. PIPE
E	3" SECTION REN. CONC. PIPE
F	BASE

[illegible]

SCALE (H) AS SHOWN	SCALE (V) N/A	DESIGN BY: BJH
F.L.D. BK. # N/A	DATE: 1/18/06	DRAFTED BY: ROB
		CHECKED BY:

**RHODES HOMES**  
**2750-NORTH SITE**

**Stanley Consultants Inc.**  
 5820 SOUTH EASTERN AVENUE, SUITE 200  
 LAS VEGAS, NEVADA 89119 (702) 368-9366

A Stanley Group Company  
 Engineering, Environmental  
 and Construction Services  
 Worldwide

PROJECT: **GOLDEN VALLEY RANCH  
 POTABLE WATER  
 RESERVOIR 2750 N-1**

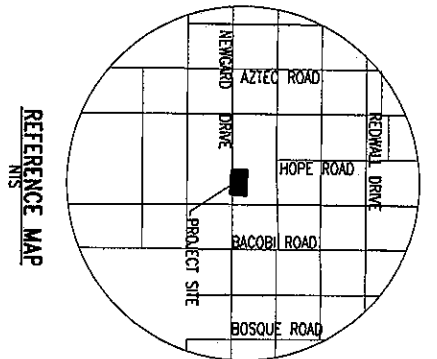
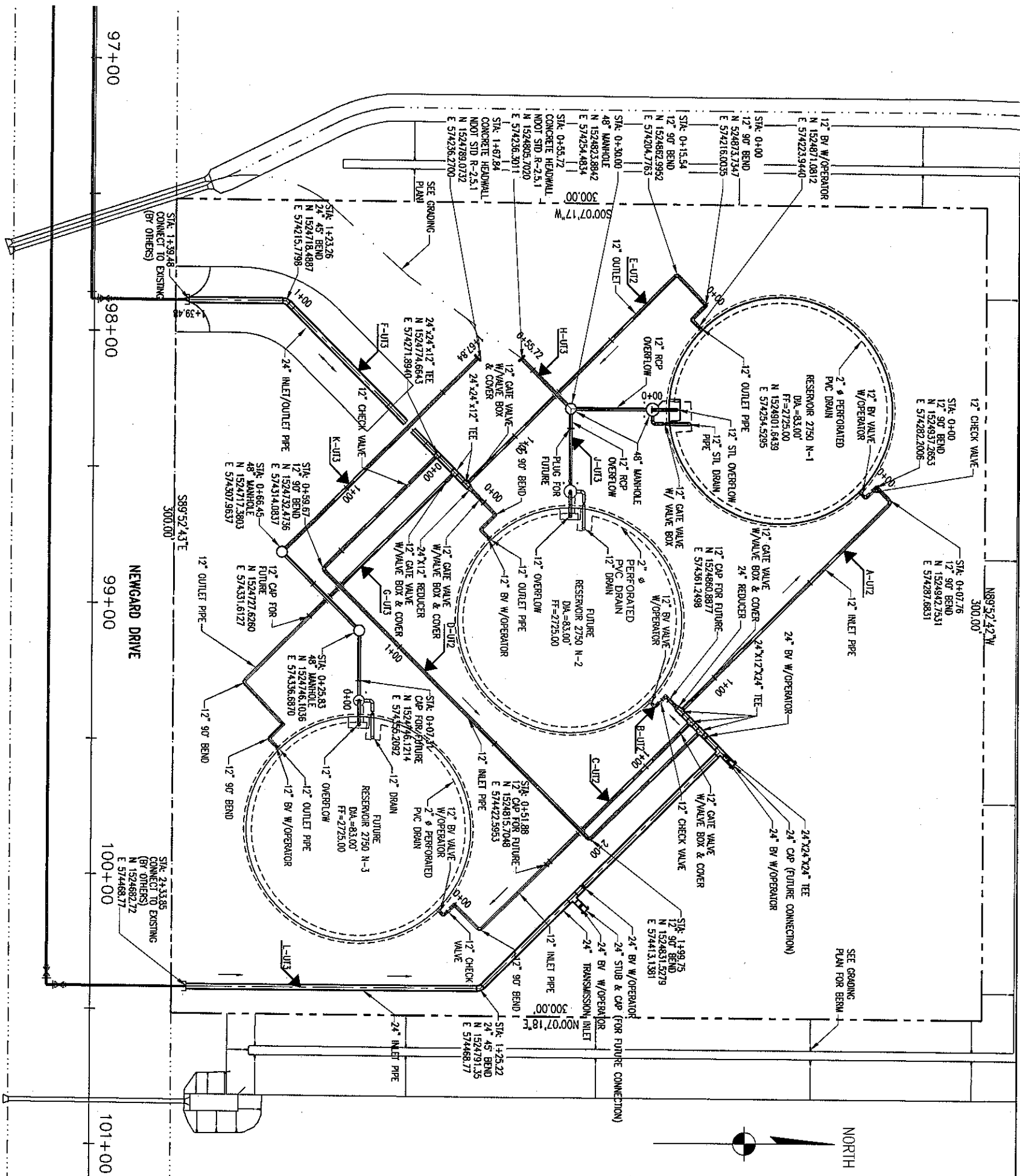
## GRADING SECTIONS AND DETAILS

**SHEET:**

**NOT FOR CONSTRUCTION**

[illegible]





**BASIS OF BEARINGS**

NORTH 00°12'47" EAST - THE EAST LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 27, TOWNSHIP 21 NORTH, RANGE 18 WEST, CLIA & SALT RIVER MERIDIAN, MOHAVE COUNTY, ARIZONA, AS DETERMINED BY THE ARIZONA COORDINATE SYSTEM OF 1983 (AZ83-WF), WEST ZONE, INTERNATIONAL FOOT, UTILIZING FAST STATIC OBSERVATIONS PROCESSED BY NGS-OPUS.

M.C.S.D. "SD 32" = LATITUDE 35°09'22.70034"N, LONGITUDE 114°09'21.57240"W (NAD 83)

M.C.S.D. "SD 35" = LATITUDE 35°09'22.43032"N, LONGITUDE 114°10'58.56309"W (NAD 83)

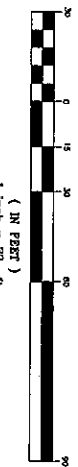
SEC COR 26/36/34/77 = LATITUDE 35°10'15.19764"N, LONGITUDE 114°10'59.03545"W (NAD 83)

BENCHMARK # "AZT 5" M.C.S.D. BENCHMARK ELEVATION = 2662.014ft (NAD 83)

DESCRIPTION: 1 1/2" ALUMINUM CAP IN CONCRETE STAMP MOHAVE COUNTY 1999 "RLS 10343" LOCATED AT THE SOUTHWEST CORNER OF AZTEC ROAD & BOSQUE DRIVE.

PLAN  
SCALE: 1"=20'

GRAPHIC SCALE  
(IN FEET)



**NOTE:**  
1. ALL DUCTILE PIPE JOINTS AND CONNECTIONS TO BE RESTRAINED.

**DISCLAIMER NOTE**

UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE. THE CONTRACTOR'S RESPONSIBILITY IS TO DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES. NO REPRESENTATION IS MADE BY THE ENGINEER AS TO THE ACCURACY OF THE INFORMATION PROVIDED HEREIN. THE ENGINEER'S RESPONSIBILITY IS TO SHOW UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

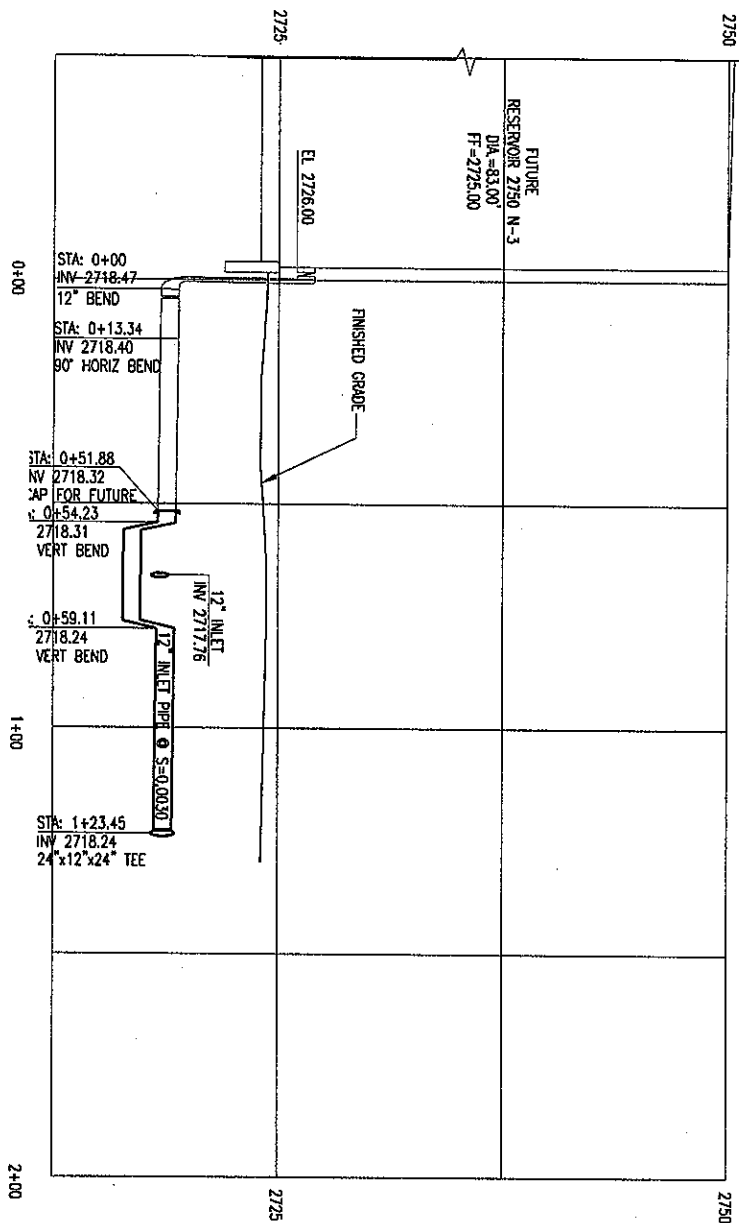
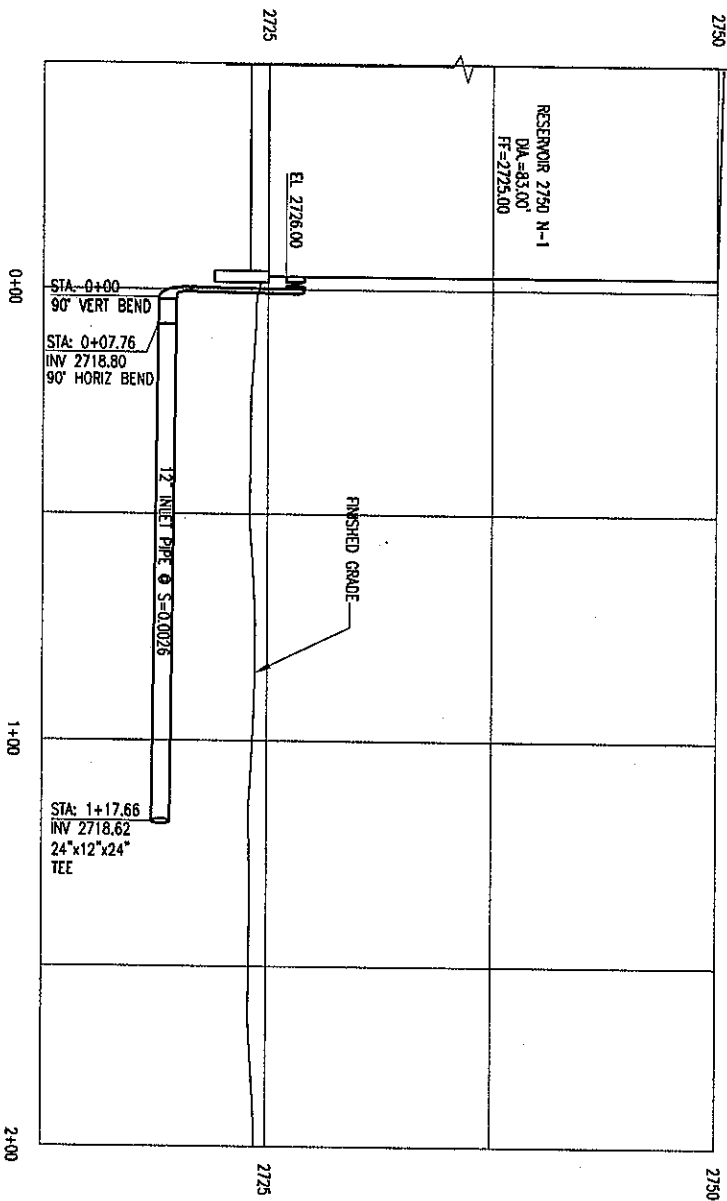
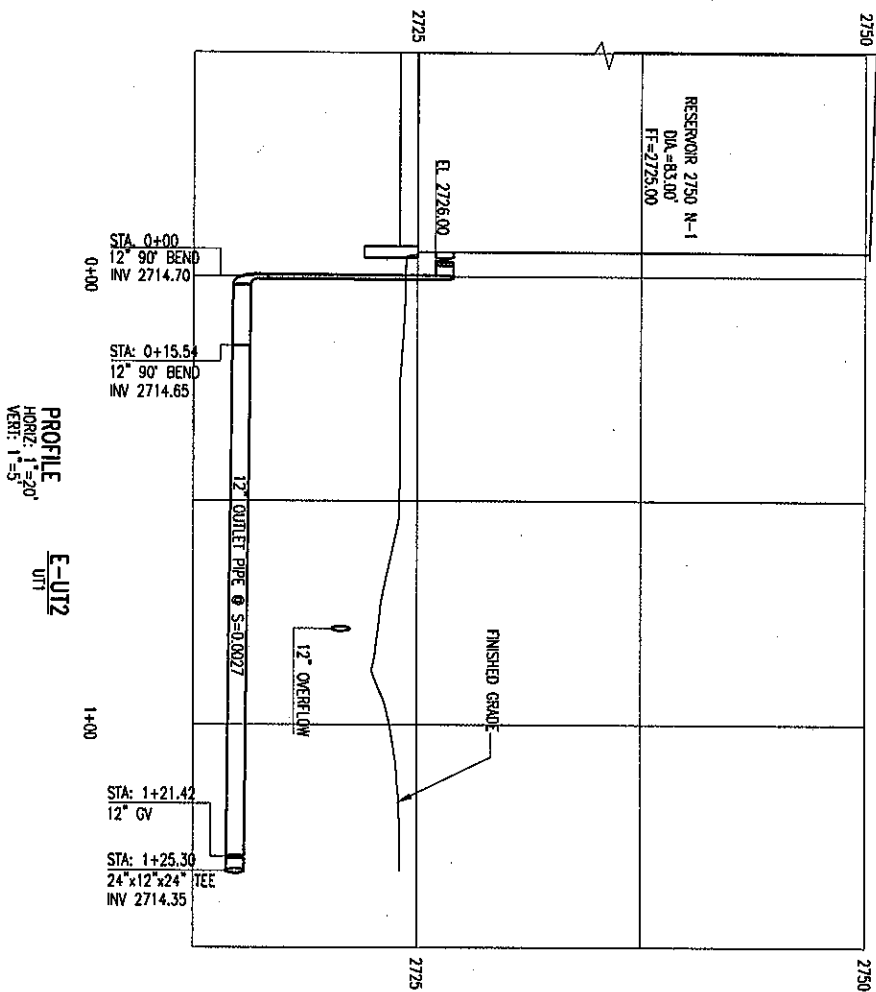
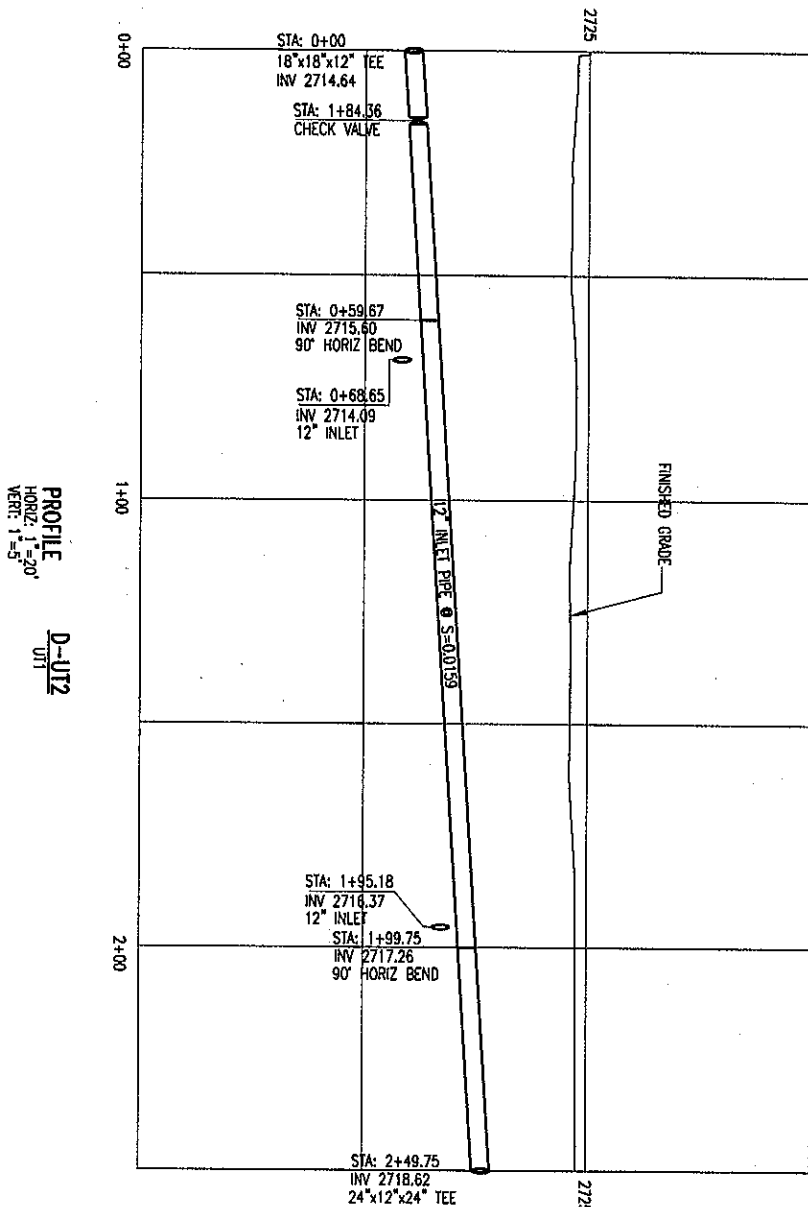
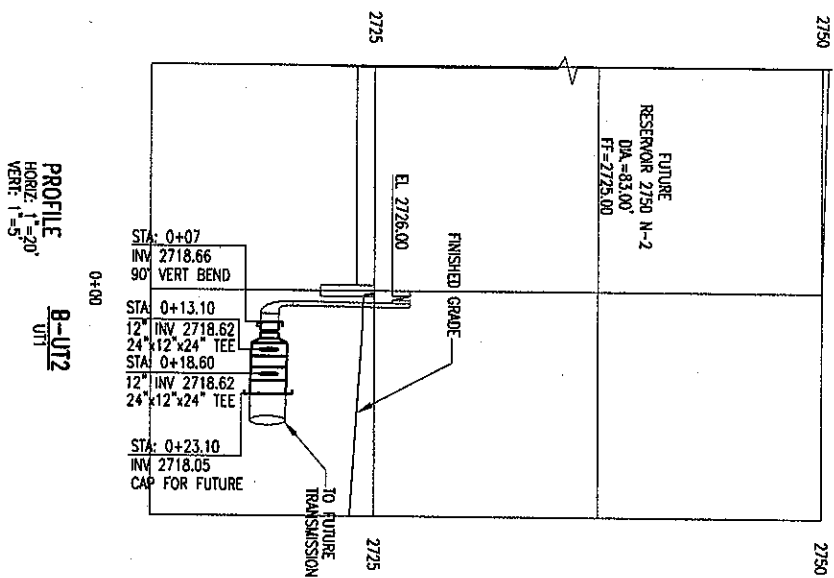
Call before you dig  
1-800-485-5048  
or  
1-800-485-5048

Call before you dig  
1-800-485-5048  
or  
1-800-485-5048

REVISIONS		DATE

SCALE (H) AS SHOWN	SCALE (V) N/A	DESIGN BY: BJH
FLD. BK. # N/A	DATE: 1/18/06	DRAFTED BY: RDB
		CHECKED BY:

DRAWING NO. UT1	7	18
--------------------	---	----



**DISCLAIMER NOTE**  
UTILITY LOCATIONS SHOWN  
ARE BASED ON RECORD DRAWINGS  
AND FIELD SURVEY DATA.  
STANLEY CONSULTANTS, INC.  
ACCEPTS NO RESPONSIBILITY  
FOR THE ACCURACY OF THE  
LOCATIONS OF ALL EXISTING  
UTILITIES SHOWN. THE  
ENGINEER'S RESPONSIBILITY  
IS TO SHOW UTILITIES  
NOT SHOWN IN THE  
RECORD DRAWINGS.

Call before you dig  
1-877-486-5881  
or  
1-877-755-5881

REVISIONS		DATE

SCALE (H) AS SHOWN	SCALE (V) N/A	DESIGN BY: BJH
F.L.D. BK. # N/A	DATE: 1/18/06	DRAFTED BY: RDB
		CHECKED BY:

PROJECT:	GOLDEN VALLEY RANCH POTABLE WATER RESERVOIR 2750 N-1	STANLEY CONSULTANTS, INC. 5820 SOUTH EASTERN AVENUE, SUITE 200 LAS VEGAS, NEVADA 89119 (702) 369-9396	A Stanley Group Company Engineering, Environmental and Construction Services Worldwide
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SHEET:	YARD PIPING PROFILES	DRAWING NO. UT2	8
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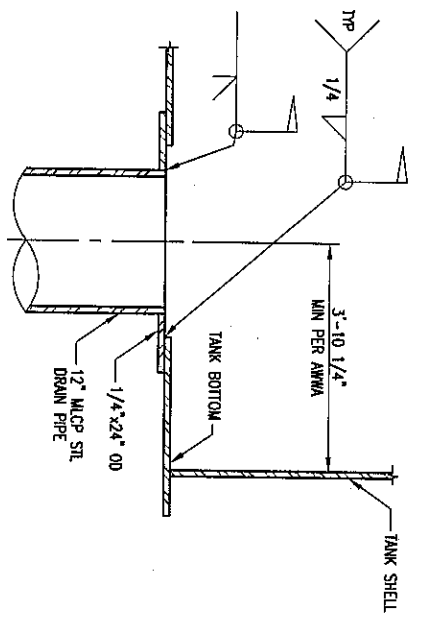
NOT FOR CONSTRUCTION



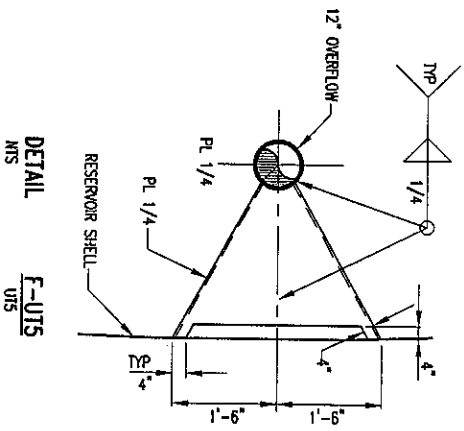




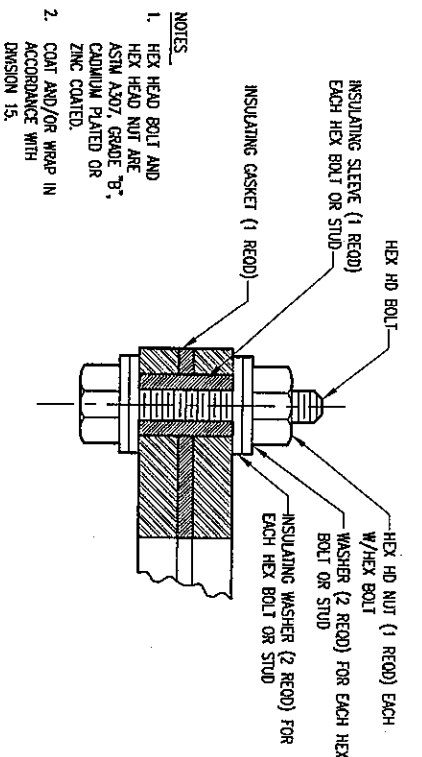
## RESERVOIR PLAN AND SECTIONS



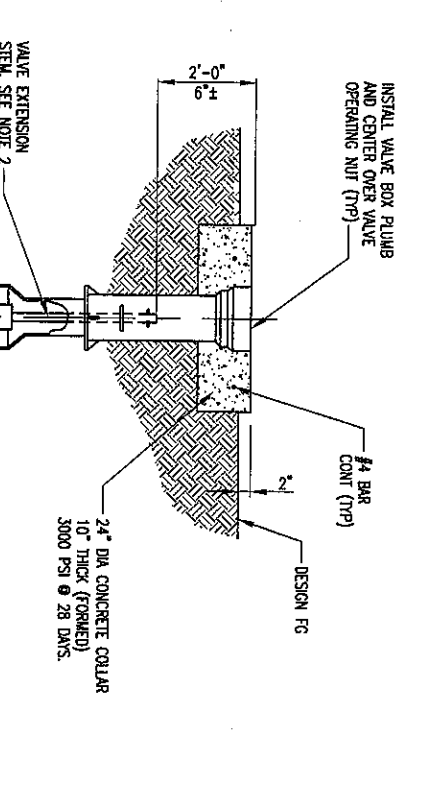
12" DRAIN  
G-UT5  
NTS



DETAIL  
E-UT5  
NTS

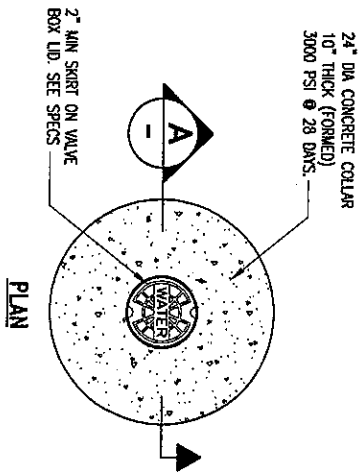


INSULATING FLANGE DETAIL  
J-UT5  
NTS

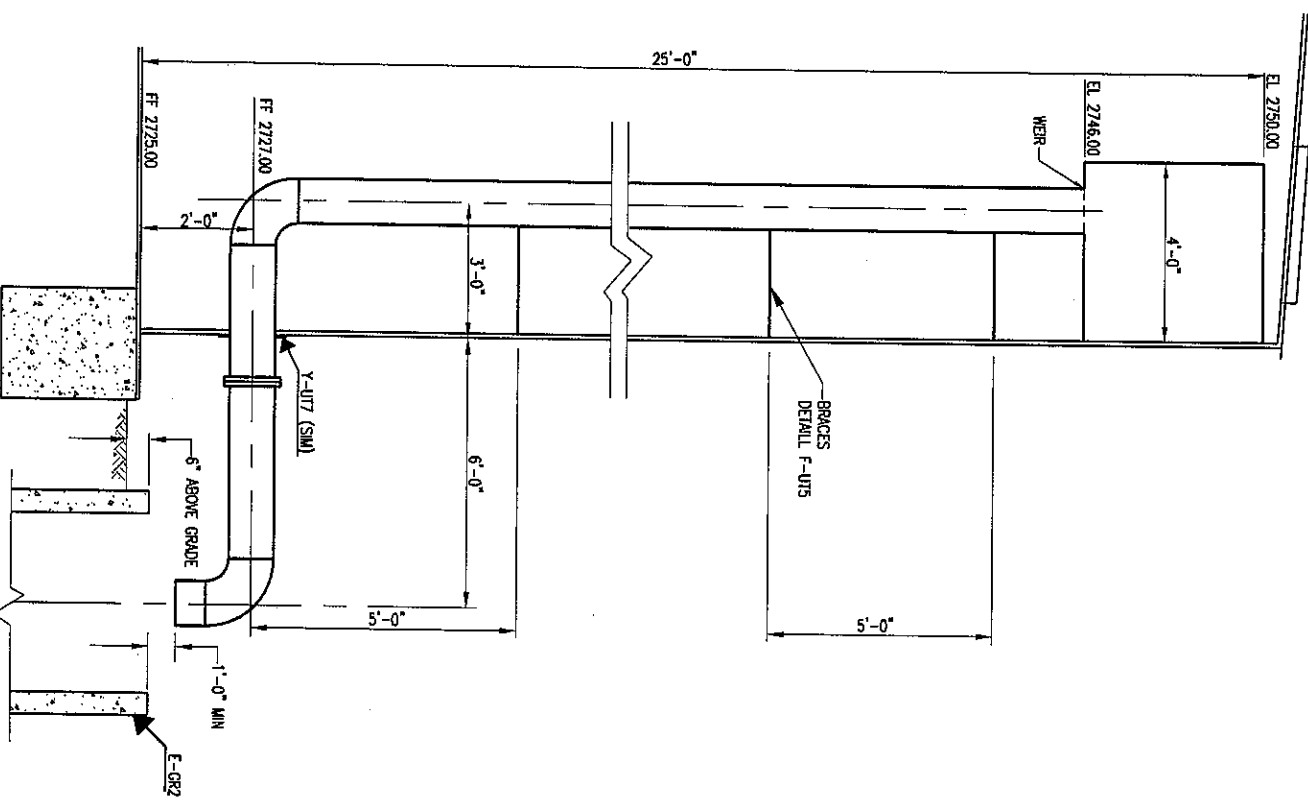


- NOTES
1. MORE STRINGENT INSTALLATION REQUIREMENTS MAY BE IMPOSED BY THE ENTITY HAVING THE JURISDICTION OVER THE VALVE BOX INSTALLATION LOCATION.
  2. A VALVE EXTENSION STEM SHALL BE PROVIDED WHERE THE DEPTH TO THE OPERATING NUT EXCEEDS FIVE (5) FEET.

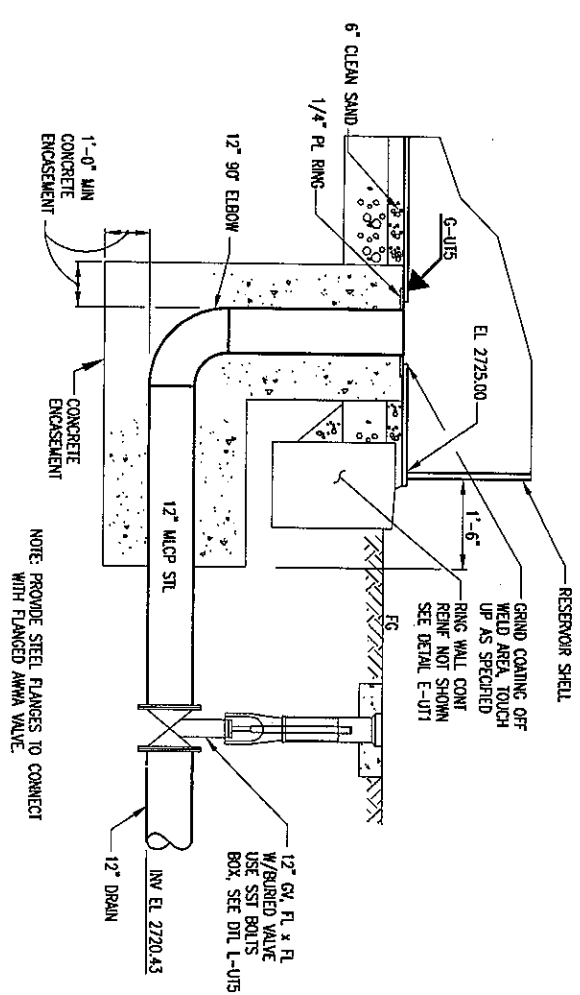
SECTION "A"



VALVE BOX INSTALLATION  
L-UT5  
NTS



SECTION  
H-UT5  
1/2"=1'-0"



SECTION  
K-UT5  
NTS

OVERFLOW AND DRAIN  
PARTIAL PLAN  
1/4"=1'-0"



Stanley Consultants INC.  
5820 SOUTH EASTERN AVENUE, SUITE 200  
LAS VEGAS, NEVADA 89119 (702) 369-9398

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Worldwide

GOLDEN VALLEY RANCH  
POTABLE WATER  
RESERVOIR 2750 N-1

SCALE (H) AS SHOWN  
FLO. BK. # N/A

RHODES HOMES  
2750-NORTH SITE

SCALE (V) AS SHOWN  
DATE: 1/18/06

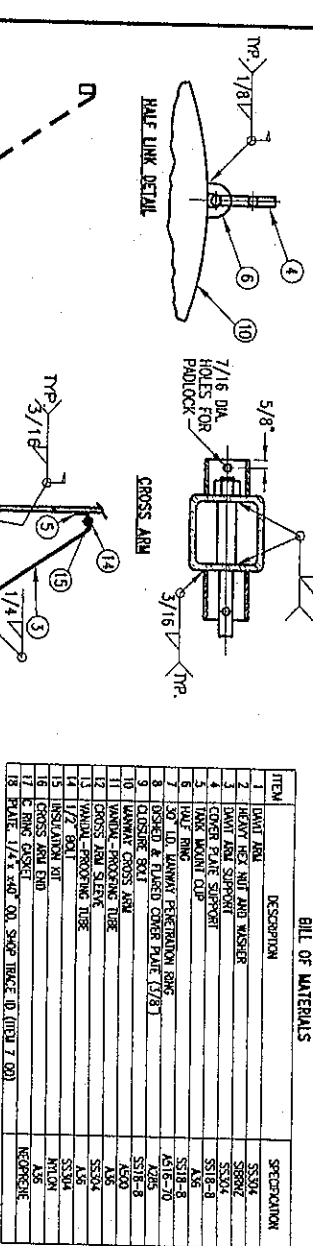
DESIGN BY: BJH  
DRAFTED BY: ROB  
CHECKED BY:

REVISIONS	DATE

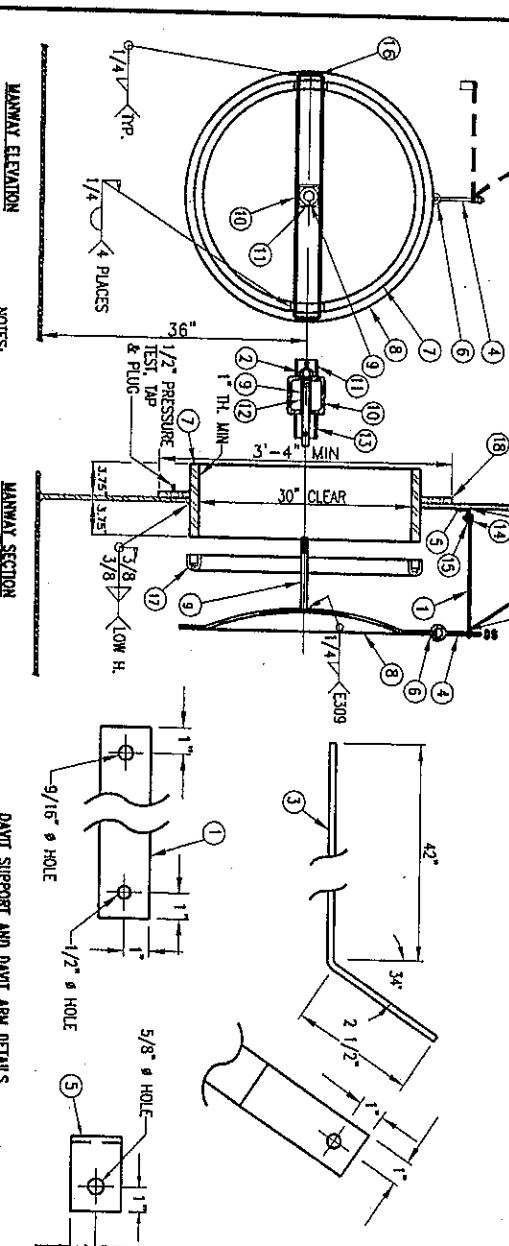
RESERVOIR SECTIONS  
AND DETAILS

NOT FOR  
CONSTRUCTION





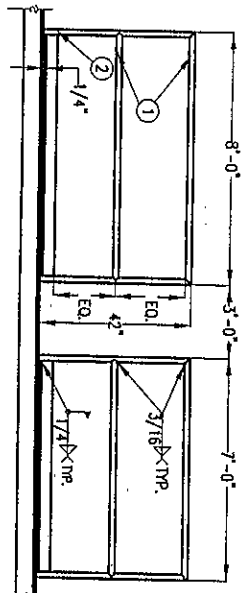
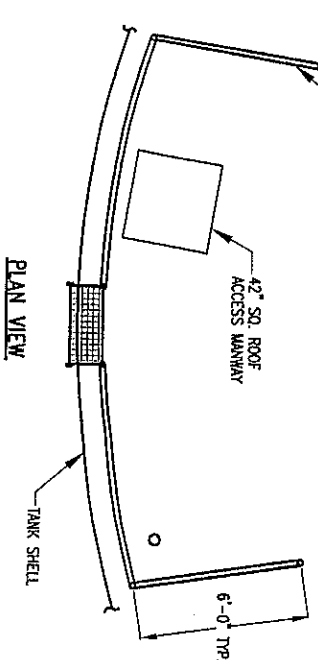
ITEM	DESCRIPTION	SPECIFICATION
1	WATER BOLT	SS304
2	WATER BOLT NUT AND WASHER	SS304/2
3	WATER BOLT WING NUT	SS304
4	COVER PLATE SUPPORT	SS16-9
5	WAX WAXIN CAP	SS16-9
6	WAX RING	SS16-9
7	1/2" ID. WAXING PERFORATION RING	SS16-4
8	DRYER & FLARED COVER PLATE (7/8")	4516-70
9	OUTSIDE BOLT	SS16-8
10	WAXING CROSS ARM	4500
11	WAXING ARM TUBE	AS
12	CROSS ARM SLEEVE	SS304
13	WAXING -PROTECTING HOSE	SS304
14	1/2" BOLT	SS16-9
15	INSULATION BIT	SS16-9
16	CROSS ARM END	AS
17	RING GASKET	SS304
18	PLATE 1/4" X 40" X 10, SARGE THICK 10 (ITEM 7.02)	REPERCUSSIVE



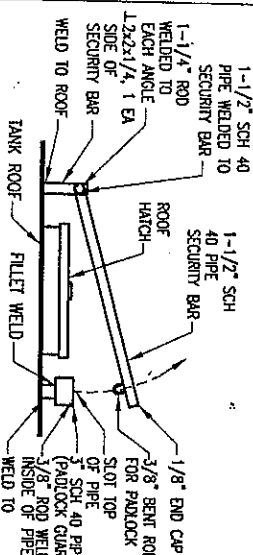
1. THE ACCESS MAINWAY SHALL SHOW NO VISIBLE SIGN OF LEAKAGE. DETAILS SHOWN ARE MINIMUM ACCEPTABLE SIZES

INWARD SHELL MANWAY - 30",  
405

ITEM	QTY.	DESCRIPTION
1		NOM. T 1/4" (1.56" O.D.) SCH. 40 SIL. PIPE
2		FLAT BAR 1/4" X 4"

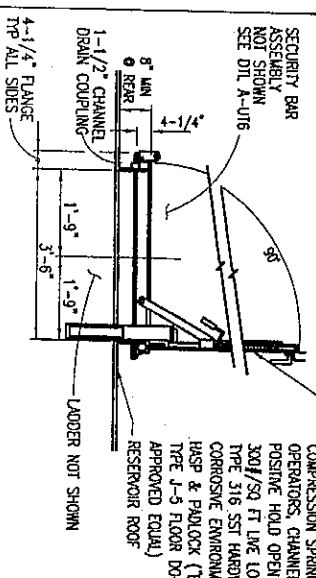


ROOF GUARDRAIL ASSEMBLY  
M-UTG  
014

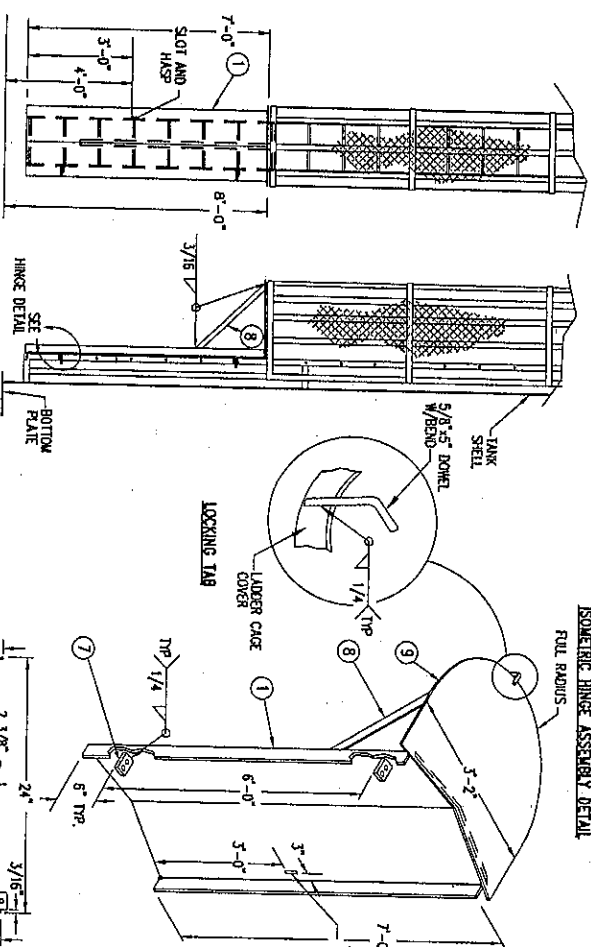


1. SECURITY BAR SHALL SWING FREELY AND PREVENT OPENING OF HATCH WHEN LOCKED.
2. WELDS AND WELD REINFORCEMENTS NOT SHOWN, ALL JOINTS SHALL BE CONTINUOUS FILLET WELDS OR COMPLETE JOINT PENETRATION GROOVE WELDS.
3. FABRICATE SECURITY BAR ASSEMBLY IN ACCORDANCE WITH CITY OF HENDERSON STANDARDS, SUBMIT DETAILS FOR REVIEW PRIOR TO FABRICATION.

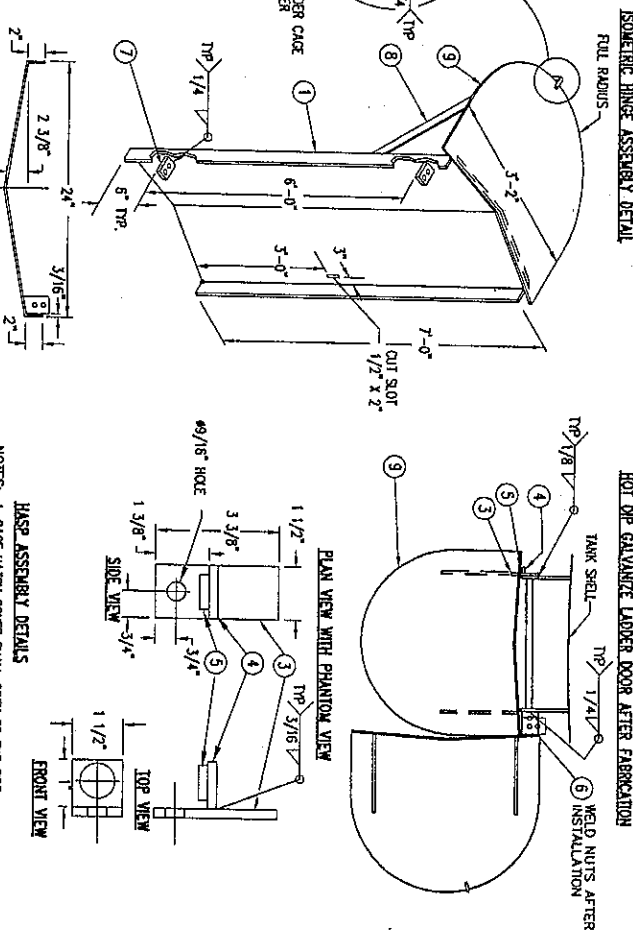
SECURITY BAR ASSEMBLY  
MIS  
A-UT6  
UT6



ROOF HATCH ASSEMBLY  
P-UT6  
UT4

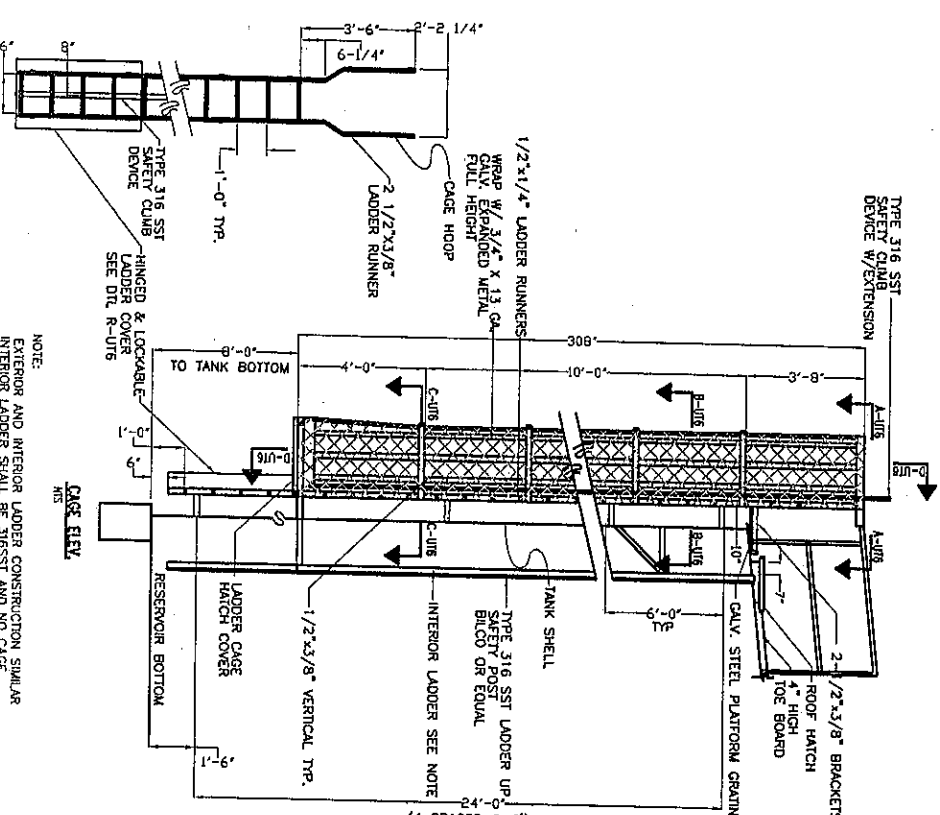


**LADDER & CAGE SHOWN FOR POSITIONING CLARITY**

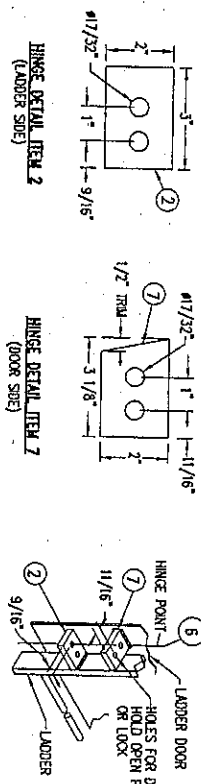


NOTES:

1. GAGE HATCH COVER SHALL OPEN TO THE SIDE TO ALLOW ACCESS TO LADDER.
2. WELDS AND WELD REQUIREMENTS NOT SHOWN. ALL JOINTS SHALL BE COMBUSTIBLE TIGHT. WELDS OR COMPLET JOINT PENETRATION GROOVE WELDS.
3. FABRICATE GAGE HATCH COVER IN ACCORDANCE WITH API 650/651 STANDARDS. SUBMIT DETAILS FOR REVIEW PRIOR TO CONSTRUCTION.

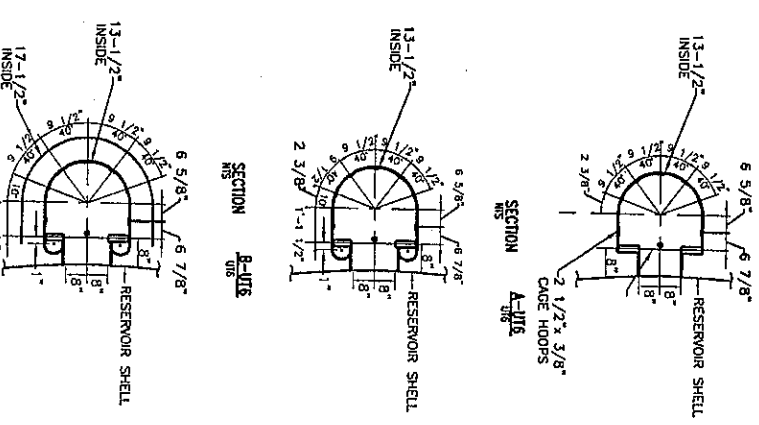


NOTE:  
EXTERIOR AND INTERIOR LADDER CONSTRUCTION SIMILAR  
INTERIOR LADDER SHALL BE 316SS1 AND NO CAGE  
EXTERIOR CAGED LADDER  
M15 0-1176  
174



**ISOMETRIC HINGE ASSEMBLY DETAIL**

no.	DESCRIPTION	STATION
1	PLATE 3/16" x 28 1/2" x 7'-0" LG. FIBER AS SHOWN	A35
2	FLAT BAR, 3/16" x 3" LG. DRILL AS SHOWN	A35
3	FLAT BAR, 3/16" x 1 1/2" x 3 3/8" LG.	A35
4	FLAT BAR, 3/16" x 1 1/2" x 1" LG.	A35
5	REINFORCE PLUG, 3/4" DIA. WITH GLE	NEOREP
6	BALL AND NUT, 1/2" x 1 1/2" LG.	A35
7	FLAT BAR, 3/16" x 3 1/8" LG. CUT AND DRILL AS SHOWN	A35
8	FLAT BAR, 3/16" x 2" x 21 1/8" LG. CUT AT 45°	A35
9	PLATE, 3/16" x 34 1/2" x 38"	A35



## RESERVOIR DETAILS



**Stanley Consultants Inc.**  
5820 SOUTH EASTERN AVENUE, SUITE 200  
LAS VEGAS, NEVADA 89111 (702) 399-8396

**A Stanley  
Engineer  
and  
Worldwide**

**GOLDEN VALLEY RANCH  
POTABLE WATER  
RESERVOIR 2750 N-1**

A Stanley Group Company  
Engineering, Environmental  
and Construction Services  
Worldwide

SCALE (H)
-----------

RHODES HOMES  
2750-NORTH SITE

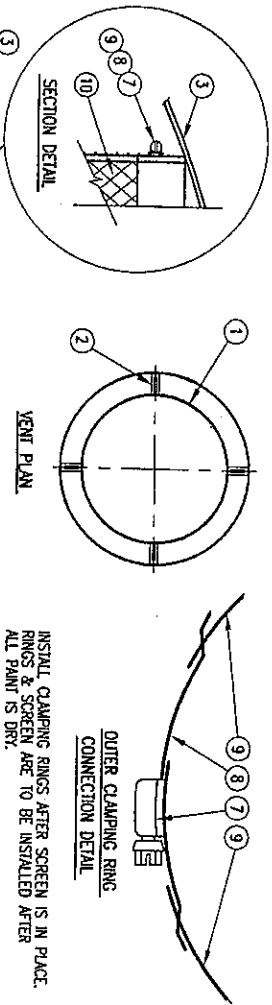
DESIGN BY: BJH  
DRAFTED BY: RDB  
CHECKED BY:

REVISIONS	DATE

ITEM	DESCRIPTION	SPECIFICATION
1	1/4" ROOF VENT NECK	A36
2	SUPPORT CLIP FOR DOUMED HEAD	A36
3	DOUMED HEAD & SKIRT	14 GAGE STL
4	BOLT & NUT 3/8"x1"	A307
5	SUPPORT CLIP FOR DOUMED HEAD	A36
6	BOLT & NUT 1/2"x1"	A307
7	SCREEN CLAMP DRIVER	SS
8	CLAMP STRAP	SS
9	CLAMP RETENTION BAND	SS
10	1/2"x1/2" SST MESH PLUS 8 SST	SS

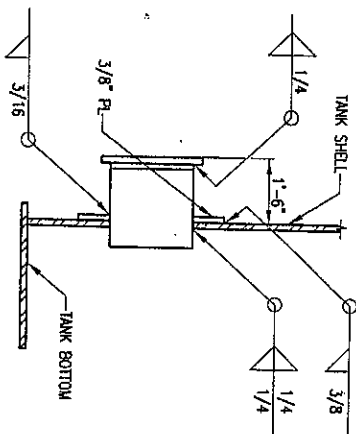
ROOF VENT IS DESIGNED WITH A REMOVABLE HOOD IN ORDER TO ACCEPT A HIGH VOLUME AIR VENTILATOR WHICH RESTS ON THE OPEN TOP OF THE VENT.

BILL OF MATERIALS

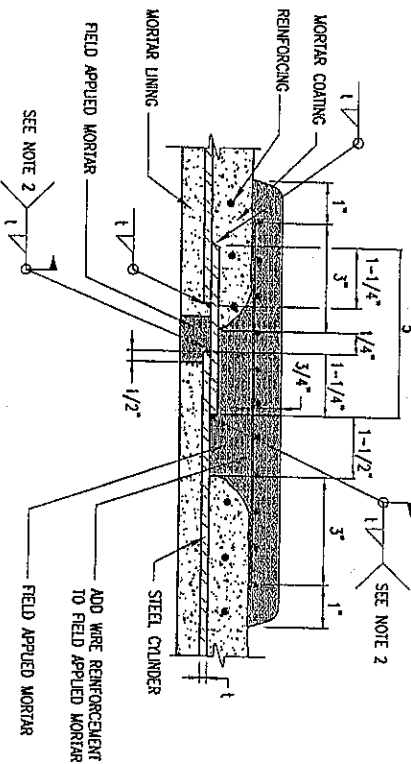


INSTALL CLAMPING RINGS AFTER SCREEN IS IN PLACE. RINGS & SCREEN ARE TO BE INSTALLED AFTER ALL PAINT IS DRY.

OUTER CLAMPING RING CONNECTION DETAIL

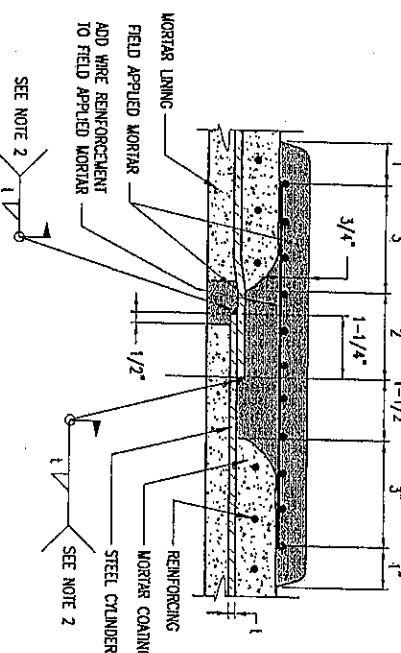


DETAIL Y-UTZ



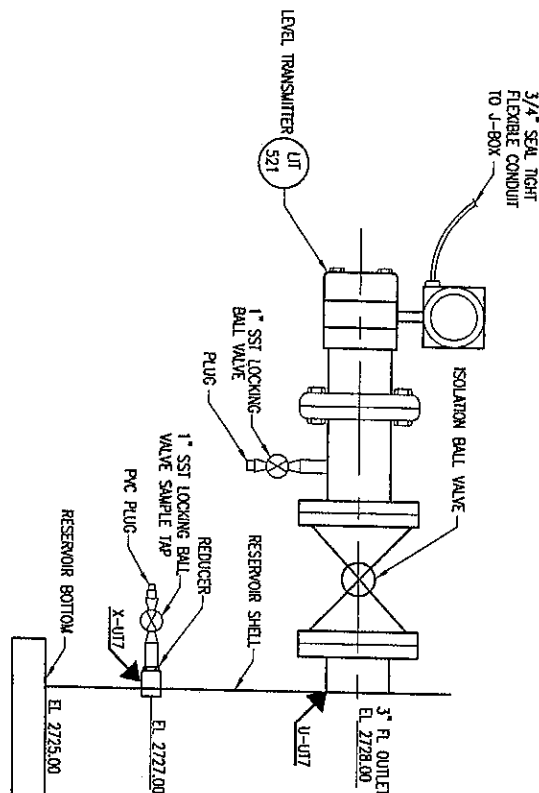
- NOTES
1. SEE SPECS SEC 02650 FOR MORTAR LINED AND COATED STEEL PIPE
  2. WELD OUTSIDE ON PIPE SMALLER THAN 36" OPTIONAL INSIDE OR OUTSIDE ON PIPE GREATER THAN OR EQUAL TO 36"

LAP WELDED JOINT FOR MLCP STEEL PIPE



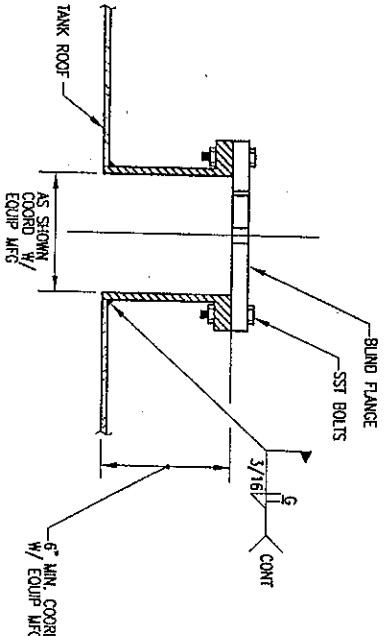
- NOTES
1. SEE SPECS SEC 02650 FOR MORTAR LINED AND COATED STEEL PIPE
  2. WELD OUTSIDE ON PIPE SMALLER THAN 36" OPTIONAL INSIDE OR OUTSIDE ON PIPE GREATER THAN OR EQUAL TO 36"

LAP WELDED JOINT FOR MLCP STEEL PIPE-ALTERNATE



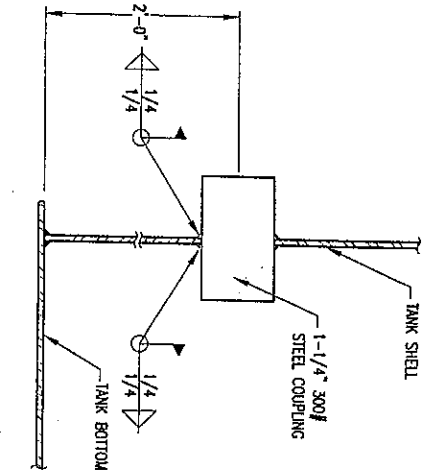
LEVEL TRANSMITTER AND SAMPLE TAP

Y-UTZ



4" Ø FLANGED ROOF NOZZLE ASSEMBLY

W-UTZ



1-1/4" Ø 300# COUPLING ASSEMBLY

X-UTZ



Stanley Consultants Inc.  
5820 SOUTH EASTERN AVENUE, SUITE 200  
LAS VEGAS, NEVADA 89119 (702) 369-9396

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Worldwide

PROJECT:

GOLDEN VALLEY RANCH  
POTABLE WATER  
RESERVOIR 2750 N-1

SCALE (H) AS SHOWN  
FLD. BK. # N/A

SCALE (V) AS SHOWN  
DATE: 1/18/06

DESIGN BY: BJH  
DRAFTED BY: RDB  
CHECKED BY:

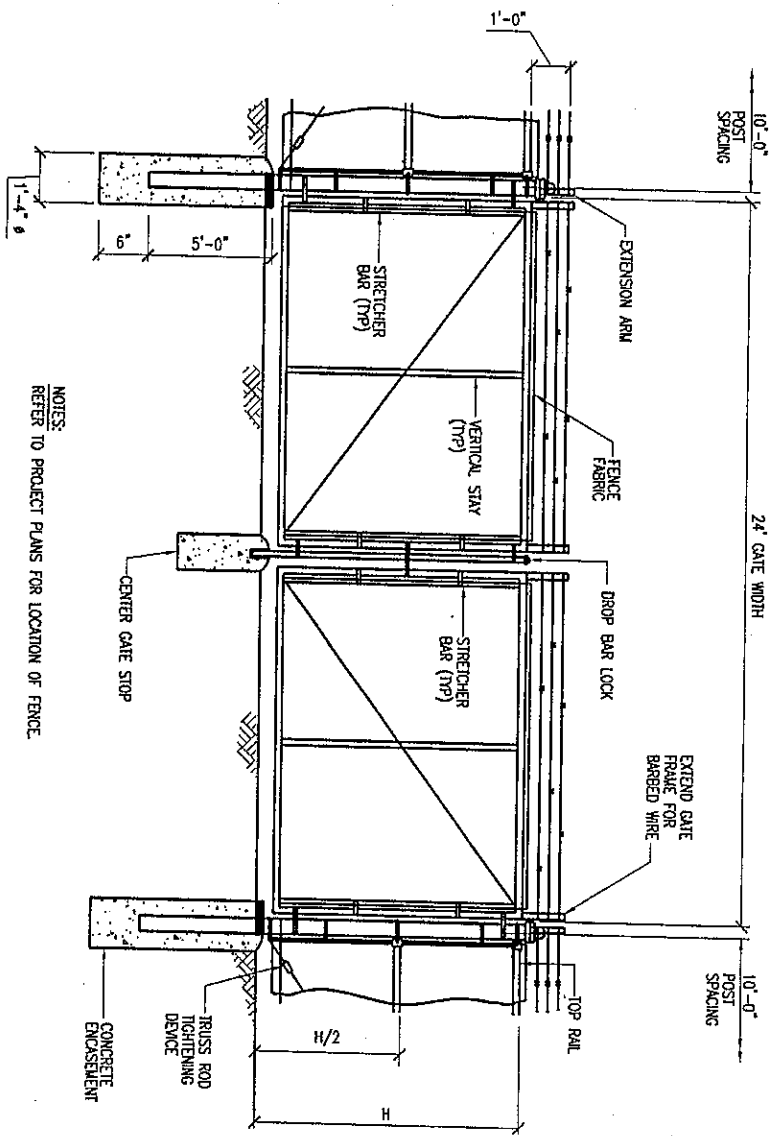
REVISIONS

DATE

RESERVOIR DETAILS

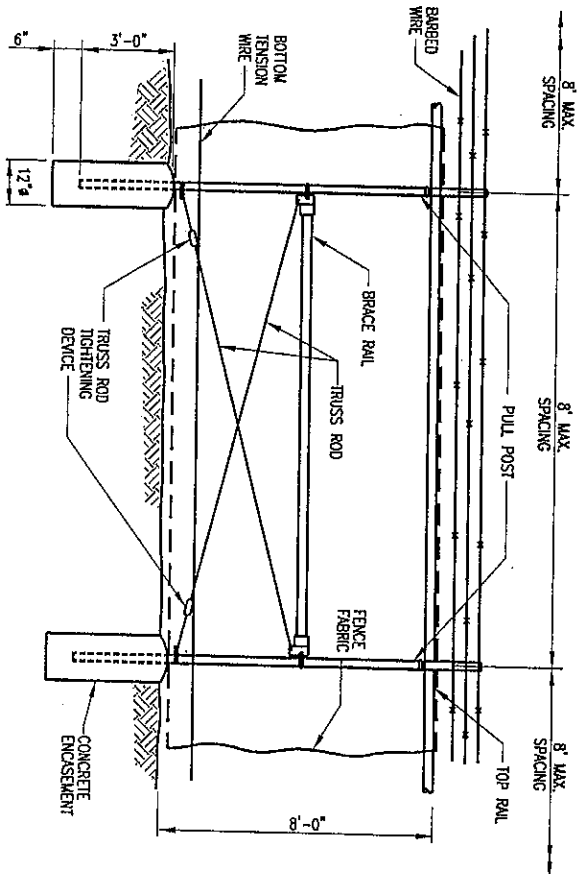
RHODES HOMES  
2750-NORTH SITE

NOT FOR CONSTRUCTION

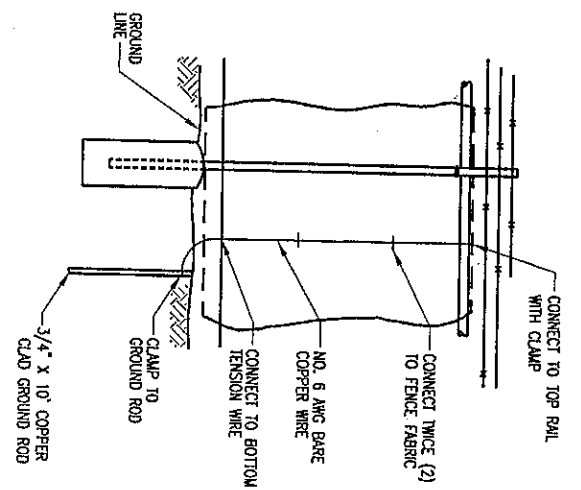


NOTES:  
REFER TO PROJECT PLANS FOR LOCATION OF FENCE.

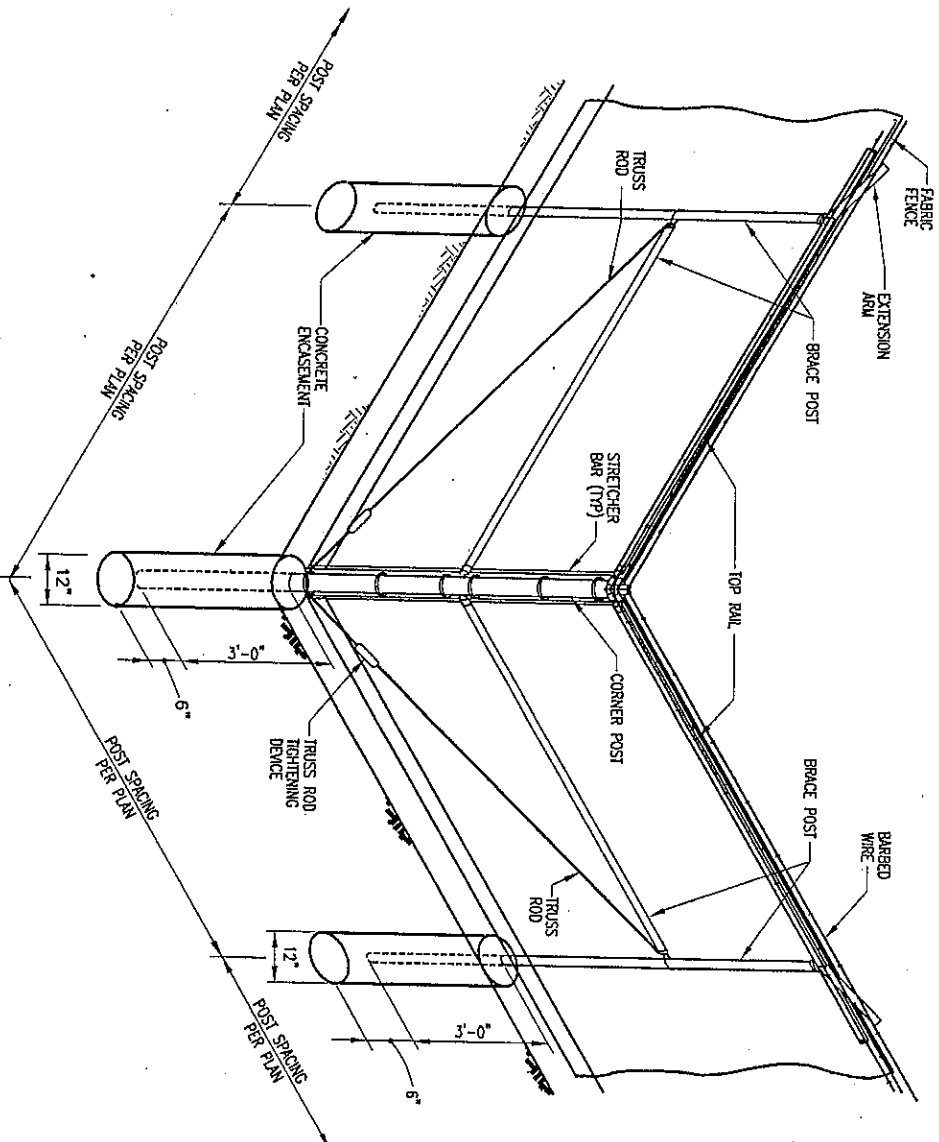
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NO SCALE



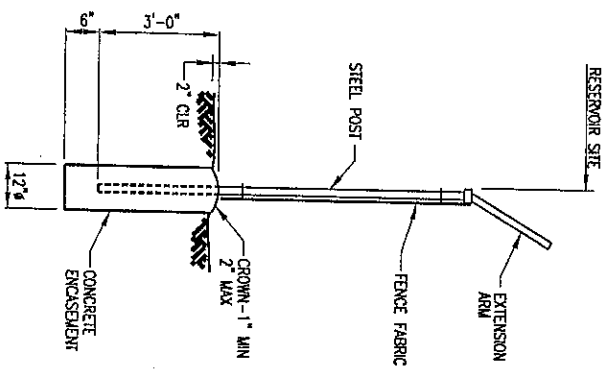
TYPICAL PULL POST INSTALLATION DETAIL A-DIT  
NO SCALE



TYPICAL GROUND ROD INSTALLATION DETAIL  
MAXIMUM SPACING 100 FT



TYPICAL CORNER, ANGLE AND PULL POST DETAIL  
NO SCALE



TYPICAL POST INSTALLATION DETAIL  
NO SCALE

DISCLAIMER NOTE  
UTILITY LOCATIONS SHOWN  
ARE APPROXIMATE  
AND ARE NOT TO BE  
USED FOR CONSTRUCTION  
OR ANY OTHER PURPOSE.  
THE USER ASSUMES ALL  
LIABILITY FOR ANY  
DAMAGE OR INJURY  
RESULTING FROM THE  
USE OF THIS INFORMATION.  
STANLEY CONSULTANTS  
INC. 5820 SOUTH EASTERN  
AVENUE, SUITE 200  
LAS VEGAS, NEVADA 89119  
(702) 369-9396

DRAWING NO. DT1	NOT FOR CONSTRUCTION	SHEET: FENCE AND GATE DETAILS	PROJECT: GOLDEN VALLEY RANCH POTABLE WATER RESERVOIR 2750 N-1	SCALE (H) AS SHOWN FLD. BK. # N/A	SCALE (V) N/A DATE: 1/18/06	DESIGN BY: BJH DRAFTED BY: RDB CHECKED BY:	REVISIONS		DATE